THIJS MENTING

Purposiveness

of Nature in

Kant's Third Critique

${\bf Thijs~Menting} \\ {\bf Purposiveness~of~Nature~in~Kant's~Third~} Critique$

Thijs Menting

Purposiveness of Nature in Kant's Third Critique

Universitätsverlag Potsdam

Bibliografische Information der Deutschen Nationalbibliothek

Die Deutsche Nationalbibliothek verzeichnet diese Publikation in der Deutschen Nationalbibliografie; detaillierte bibliografische Daten sind im Internet über http://dnb.dnb.de/ abrufbar.

Universitätsverlag Potsdam 2020 http://verlag.ub.uni-potsdam.de/

Am Neuen Palais 10, 14469 Potsdam Tel.: +49 (0)331 977 2533 / Fax: 2292

E-Mail: verlag@uni-potsdam.de

Soweit nicht anders gekennzeichnet ist dieses Werk unter einem Creative Commons Lizenzvertrag lizenziert:

Namensnennung – Keine kommerzielle Nutzung – Weitergabe unter gleichen Bedingungen 4.0 International

Um die Bedingungen der Lizenz einzusehen, folgen Sie bitte dem Hyperlink:

https://creativecommons.org/licenses/by-nc-sa/4.0/deed

Online veröffentlicht auf dem Publikationsserver der Universität Potsdam

https://doi.org/10.25932/publishup-44433

https://nbn-resolving.org/urn:nbn:de:kobv:517-opus4-444336

Zugleich gedruckt erschienen im Universitätsverlag Potsdam ISBN 978-3-86956-484-5

"Allein es sind so mannigfaltige Formen der Natur, gleichsam so viele Modificationen der allgemeinen transscendentalen Naturbegriffe, die durch jene Gesetze, welche der reine Verstand a priori giebt, weil dieselben nur auf die Möglichkeit einer Natur (als Gegenstandes der Sinne) überhaupt gehen, unbestimmt gelassen werden, daß dafür doch auch Gesetze sein müssen, die zwar als empirische nach unserer Verstandeseinsicht zufällig sein mögen, die aber doch, wenn sie Gesetze heißen sollen (wie es auch der Begriff einer Natur erfordert), aus einem, wenn gleich uns unbekannten, Princip der Einheit des Manniqfaltigen als nothwendig angesehen werden müssen."

Kritik der Urteilskraft, V:179 f. (emphases mine)

Contents

\mathbf{A}	bbre	viation	IS	ix
Pı	refac	е		xiii
\mathbf{A}	bstra	.ct		xv
In	trod	uction		1
Ι	Ov	ervie	w of the Reading	21
1	App	oroach	ing the Third Critique	23
	1.1	Orient	tation	23
	1.2	$Chall \epsilon$	enge	24
	1.3	The T	ranscendental Approach	31
	1.4		native Approaches	44
		1.4.1		44
		1.4.2		50
	1.5	Concl	·	58
2	Stru	ıcture	of the Third Critique	61
	2.1	Orient	cation	61
	2.2	Aesth	etics	63
		2.2.1	Logical Features of Judgements of Taste .	63
		2.2.2	The RPJ and Purposiveness in KaU	69
		2.2.3	Deduction of Judgements of Taste	76
		2.2.4	Reconciliation of the Antinomy of Taste .	78
		2.2.5	Wrap up of Critique of Aesthetic Judgement	80

vi *CONTENTS*

	2.3	2.3.1 Natural Purposes: A Historical Overview of Kant's Position	81 83 92
	2.4	2.3.3 Reconciliation of the Antinomy of Teleolog Conclusion	
II	\mathbf{R}	ealm of Experience	113
3		Account of Nature in Categorial	115
		Empirical Respect	115
	3.1	Orientation	115
	3.2	Two Accounts of Nature	117
	3.3	Hylomorphic Model of Nature	123
	3.4 3.5	Categorial and Empirical Levels of Nature	130 136
	3.6	Disputes about Second Analogy	130 141
	5.0	Conclusion	141
4	Disc	cursiveness	143
-	4.1	Orientation	143
	4.2	Discursiveness in the KU	145
	4.3	Forms of the Two Stems of Cognition	148
	4.4	Overcoming Dualism	156
	4.5	Discursive Mind in Comparison	162
	4.6	Conclusion	172
II	I F	Reflective Power of Judgement	175
5	The	Principle of Purposiveness	
	and	its Deduction	177
	5.1	Orientation	177
	5.2	Aim of the Transcendental Deduction	179
	5.3	Argument of Transcendental Deduction	188
	5.4	Reaction to a Counterargument	200
	5.5	Conclusion	205
6	On	an Assumed Overlap	207
	6.1	Orientation	207

	6.2	Granting a Role to Reason	209		
	6.3	Regulation	216		
	6.4	Status of Regulation	225		
	6.5	Supposed Overlap	236		
	6.6	Conclusion	246		
7	Ref	lection	249		
	7.1	Orientation	249		
	7.2	A Determining and a Reflecting Activity	252		
	7.3	Threefold Logical Act	262		
	7.4	Principle of Purposiveness and Reflection	275		
	7.5	Conclusion	283		
Co	onclu	sion	287		
Bi	Bibliography 29				

Abbreviated Titles of Kant's Works and Citations

Anth Anthropologie in pragmatischer Hin-

sicht~(1798)

BDG Der einzig mögliche Beweisgrund

zu einer Demonstration des Daseins

Gottes (1763)

Bestimmung des Begriffs einer Men-

schenrace (1785)

 $EEKU \qquad \qquad Erste \ \ Einleitung \ \ in \ \ die \ \ Kritik \ \ der$

Urteilskraft (1793)

FM Welches sind die wirklichen

Fortschritte, die Metaphysik seit Leibnitzens und Wolffs Zeiten in

Deutschland gemacht hat? (1804)

GMS Grundlegung zur Metaphysik der Sitten

(1785)

JL $J\ddot{a}sche\ Logik\ (1800)$

KU Kritik der Urteilskraft (1790)

KpV Kritik der praktischen Vernunft (1788) KrV Kritik der reinen Vernunft (1781/7) MAN Metaphysische Anfangsgründe der

Naturwissenschaften (1786)

x Abbreviations

MSI	De mundi sensibilis atque intelligibilis
	forma et principiis (1770)
$MetL_1$	$Metaphysik L_1$ (Pölitz) (late 1770's)
NTH	Allgemeine Naturgeschichte und Theo-
11111	rie des Himmels (1755)
PND	Principiorum primorum cognitionis
	metaphysicae nova dilucidatio (1755)
Prolegomena	Prolegomena zu einer jeden künftigen
-	Metaphysik (1783)
TG	Träume eines Geistersehers, erläutert
	durch die Träume der Metaphysik
	(1766)
Ton	Von einem neuerdings erhobenen
	vornehmen Ton in der Philosophie
	(1796)
V- $Lo/Wiener$	Wiener Logik (transcription probably
	from 1794–1796)
V - $Th/P\ddot{o}litz$	Religionslehre Pölitz (1783–6)
\dot{VvRM}	Von den verschiedenen Racen der Men-
	schen (1775)
WA	Beantwortung der Frage: Was ist Auf-
	$kl\ddot{a}rung?~(1784)$
ZeF	Zum Ewigen Frieden (1795)
$\ddot{U}E$	Über eine Entdeckung, nach der alle
	neue Kritik der reinen Vernunft durch
	eine ältere entbehrlich gemacht werden
	soll (1790)
$\ddot{U}GTP$	Über den Gebrauch teleologischer Prin-
	cipien in der Philosophie (1787)
	1 ()

Note on Citations

Citations to the Kritik der reinen Vernunft are to the customary A/B page numbers, e. g. A545/B574. All other works will be cited to the volume and page number of the Akademie Ausgabe (Kant 1902 ff.). The volume is expressed in Latin capital numbers, the page number in Arabic numbers, separated by a colon, e. g. "IX:55". His notes, Reflexionen (R), are additionally numbered and dated according to the assumptions by Erich Adickes entailed in the Akademie Ausgabe, e. g. "R 2393, XVI:342 (1769–1770?)". Punctuation marks are only quoted if they belong to the citation,

Abbreviations xi

otherwise they will follow after the reference, e. g. "the RPJ is guided by the transcendental principle of purposiveness, 'the agreement of nature with our faculty of cognition' (V:185)." To guarantee the flow of the text, and in agreement with industry standards, I use English translations for citations in the main text corpus. The following translations from the Cambridge Edition of the Works of Immanuel Kant have been used and edited where mentioned: Kant (1992), Kant (1996), Kant (1998), Kant (2000), Kant (2002) – see the Bibliography for further information. Citations of other primary historical works, and of some untranslated Kantian sources, are in the original language.

Preface

Preparing this study has been quite an endeavour. Studies of this kind are usually results of solitary retreat, but not without the crucial interference and support of certain individuals. This study is no exception. I am grateful to Johannes Haag for his trust and support from the early drafts onwards and his willingness to discuss my approach in an open and stimulating way. I would like to thank Victor Kal, Cornelia Buschmann and Paul Lobbrecht for their teachings at various stages in my life – without them this book would not have been written. John McDowell, Steve Engstrom and Ido Geiger spent valueble hours to discuss drafts in various stages of completion and I feel blessed and honoured that they were willing to do so.

Moreover, I would like to thank the following individuals for academic and moral support: Ria & Ben Menting, Marloes Reijnders, Sander Kalverda, Lars Leschke, Dennis Wildfeuer, Gilad Baram, Paul Mucichescu, Sam Stoner, Nir Friedman, Matthé Scholten, Stefan Färber, Alfredo Felix-Diaz, Paul Gijsbers, Tobias Herold, Rachel Zuckert, Thomas Ebke, Karsten Schöllner, Bianca Ancilloti, Till Hoeppner, Stefanie Grüne, Diego Chamy, Laura Tomlinson, Jasper Menting, Ana-Maria Schlupp, Marta Lupica, Chiara Caradonna, Justin Stewart, Hans-Peter Krüger, Mathias Birer, Stefan Ripplinger, Benjamin Wilck, Luca Quaglierini, Paul Franks, Johannes Kleine, the kind folks at Potsdam University Press and many more.

Despite the generous support and advice I received, I am sure this reading is not without its flaws, for which no one but the author bears responsibility.

Abstract

This dissertation aims to deliver a transcendental interpretation of Immanuel Kant's Kritik der Urteilskraft (1790) (KU), considering both its coherence with other critical works as well as the internal coherence of the work itself. This interpretation is called transcendental insofar as special emphasis is placed on the newly introduced cognitive power, namely the reflective power of judgement, guided by the a priori principle of purposiveness. In this way the seeming manifold of themes, varying from judgements of taste through culture to teleological judgements about natural purposes, are discussed exclusively in regard of their dependence on this faculty and its transcendental principle. In contrast, in contemporary scholarship the book is often treated as a fragmented work, consisting of different independent parts, while my focus lies on the continuity comprised primarily of the activity of the power of judgement.

Going back to certain central yet silently presupposed concepts, adopted from previous critical works, the main contribution of this study is to integrate the KU within the overarching critical project. More specifically, I have argued how the need for the presupposition by the reflective power of judgement follows from the peculiar character of our sense-dependent discursive mind. Because we are sense-dependent discursive minds, we do *not* and cannot have immediate insight into all of nature's features. The particular constitution of our mind rather demands conceptually informed representations which mediately refer to objects.

Having said that, the principle of purposiveness, namely the presupposition that nature is organised in concert with the parxvi ABSTRACT

ticular constitution of our mind, is a necessary condition for the possibility of reflection on nature's empirical features. Reflection refers on my account to a process of selecting features in order to allow a classification, including reflection on the method, means and selection criteria. Rather than directly contributing to cognition, like the categories, reflective judgements thus express our ignorance when it comes to the motivation behind nature's design, and this is most forcefully expressed by judgements of taste and teleological judgements about organised matter. In this way, reflection, regardless whether it is manifested in concept acquisition, scientific systematization, judgements of taste or judgements about organised matter, relies on a principle of the power of judgement which is revealed and justified in this transcendental inquiry.

Introduction

In a seminal paper Schrödinger (1935) reflects on the discovery of the indeterminate behaviour of particles on a microscopic level in quantum mechanics. Previously, he states, physicists developed models to determine with the greatest possible exactness the state of a body at a certain point in space and time based on given values of certain variables. These scientists aimed – asymptotically, Kant might add – at a 'complete model' to reduce the contingency of the outcome of their equations as much as possible. Yet for modern physicists this is no longer required, Schrödinger argues, since the phenomenon of superposition allows a quantum system to exist as a combination of multiple states corresponding to different possible outcomes. This indeterminacy is built into the postulates of quantum mechanics. Therefore the classical ideal of prediction must be replaced by statistical probability. Schrödinger concludes. To illustrate his argument Schrödinger develops a wellknown thought experiment on a macroscopic scale; imagine a cat in a closed box together with a fatal device which might or might not be triggered by the decay of a radioactive particle within a certain period of time. According to an established interpretation of quantum mechanics, the cat remains both dead and alive until the box is opened to observe the situation. This outcome is obviously absurd; the cat is either dead or alive between the possible activity of the fatal device and the opening of the box.

Of course this study does not pretend to state anything relevant about Schrödinger's cat nor about the many interpretations of quantum theory. Rather, it is about a presupposition at work

whenever we interact with nature, stating that nature is designed in concert with the peculiar character of our mind. The above reaction by Schrödinger is striking insofar as a widely respected scientist challenged a sophisticated interpretation of a phenomenon with recourse to what Kant calls "common sense" (V:169). We must, Schrödinger believes, assume nature to be organised such that our models have a predictive power like that provided by classical mechanics. A maxim like 'nature does not make leaps' is, for instance, a manifestation of this expectation, challenging the physicist to improve her interpretation until she can – in this case – account for the continuous movement of the particles over time. While Schrödinger's opponents thought that "a science exists beyond the scope where processes, independent of the observer's situation, can be described reasonably [sinnvoll] by properties of objects", he himself resisted the paradoxical situation that microscopic phenomena are indeterminate in terms of classical physical concepts, i. e. in terms which are in accordance with our understanding. The reason, I assume, is his demand that a description of nature must have predictive power, because we presuppose that nature is organised in accordance with the particular character of our mind to allow a unified and coherent experience.

Discussion of the Problem

I cannot allow myself to judge whether that is an appropriate or a flawed stance to take; yet the above example from the genre of popular science writing allows us to observe a principle at work which is discovered, justified and elaborated from various perspectives in the final *Critique* by Immanuel Kant. This work is highly complex, rich and sophisticated, yet within and outside Kantian scholarship it is, usually, not considered to be a mature contribution to transcendental philosophy. While the first *Critique* inquires into the possibility of metaphysics in general, i. e. a priori cognition, as well as its sources, its scope and boundaries, the second *Critique* seeks the justification of the principle of

¹Weizsäcker (1971, p. 228). Translation mine. Please note that Weizsäcker ascribes this view to Bohr, one of the main advocates of the Copenhagen interpretation of quantum theory, which is the primary target of Schrödinger (1935).

morality. Cognition and morality are fundamental in our relation to objects, determined, as these works teach us, by a priori synthetic principles. The situation is different in the KU, since we cannot find a determining principle or a distinctive domain of application of that principle. In that respect we find a particular asymmetry between the first and second Critique on the one hand and the third Critique on the other. In the latter we find instead a manifold of themes whose coherence is far from obvious. This is true for the KU's place within the critical work as well as for the internal relation of the themes discussed within the work. In light of these issues, discussions of the work often focus on a particular aspect, typically either the aesthetics or the teleology of organised matter, rather than the overall work as a contribution to transcendental philosophy.

Differently, in this study the KU is taken as an inquiry into the Reflecting Power of Judgement (RPJ), "the subjective formal condition of a judgement in general" (V:287), guided by the transcendental principle of purposiveness, "the agreement of nature with our faculty of cognition" (V:185). As I have tried to indicate, the latter principle is silently presupposed in Schrödinger's argument.

Even though many of the so-called piecemeal readings are valuable philosophical contributions and astute interpretations, something goes missing when the question of the transcendental status of the KU is not formulated explicitly. In the Preface Kant indeed warns the reader of "some not entirely avoidable obscurity" (V:170) in regard to his discussions of taste, which is nevertheless excusable, he believes, since the inquiry addresses the issue "only from a transcendental point of view" (V:170). What matters, he adds, is an adequate establishment of the principle of purposiveness. Following this and similar leads, I would like to bring the question of the KU's transcendental status to the centre of attention to situate and order the seemingly contingent collection of isolated topics in the KU in light of Kant's critical project, thereby restoring the importance of this faculty and its guiding principle. Being a contribution to transcendental philosophy, I will argue, the KU is not concerned with cognition of objects, but rather with the a priori contribution of our mind to the mode of our relation to objects of experience. On such an account, the RPJ, guided by the revealed a priori principle of purposiveness, is the main cognitive faculty in the work and hence must be granted a central place in a charitable interpretation of the KU.

I would like to spell out my position in a nutshell over the next few pages, addressing some of the obvious problems scholars have noted, with a special focus on the relation between judgements of taste and teleological judgements of organised objects. What I will provide is merely a rough sketch for the reader to gain an overview – the details of the arguments are found in the chapters to follow, which are listed at the end of this Introduction.

Reflection vs. Determination

The main activity of the RPJ is $reflection^2$, often contrasted by Kant with the other mode of the power of judgement, namely determination. Determination is the subsumption of representations, i. e. intuitions or concepts, under 'given' general representations for cognition in a judgement. That way, a predicate A is ascribed to a representation while that representation is denied the contradictory predicate non-A. Consider a judgement like "Socrates is a man". This judgement, provided by the determining power of judgement, determines a representation ('Socrates') by subsuming it under a broader concept ('man').

It is slightly harder to specify the reflective mode of the power of judgement. This activity comes into play if the general representation is not yet given, but "is to be found" (V:179). Hence I will describe reflection as the search for conceptual representations, mediately related to objects through features, to refer to representations of objects we encounter in nature. This search will be taken as a process of selecting features in order to allow a classification, including reflection on the method, means and selection criteria. The result could be a generated concept, but also an insight into a causal structure or the dependencies within an order of concepts. This might even, but does not have to, be

²Reflection is a translation of *Reflektion* or *Überlegung*. In the typical case these two concepts have the same meaning. *Überlegung* is often followed by the bracketed Latin translation *reflexio*, e. g. A260/B316; R 2876, XVI:556 (1776–1778), VII:140.

directed by an explication and consultation of our rational norms and representational abilities. I would like to draw on the above example to illustrate this account of reflection.

Suppose that, confronted with Socrates, we are unsure how to classify, i. e. determine, him. We might, for whatever reason, believe that Socrates is not human, but one of the many divine Greek creatures. Moreover, we believe that in this case the only relevant feature is mortality, since we know that all humans are mortal and all Gods are immortal. After Socrates drinks the poison and subsequently dies, we can ascertain his mortality. Based on our knowledge, this is a criterion to subsume Socrates under the set of men, which we do accordingly by determining Socrates as a man. It is to be noted that, in this example, searching for an appropriate concept, we set up the criterion and method to enable this reflection. Along similar lines, reflection plays a central role in all of our inquiries into empirical nature.

Principle of Purposiveness

At the current stage one might want to ascribe this activity to sheer logic as it merely concerns "the form of thinking" (A130 f./B 169), regardless of the content. Although interesting on its own, this is not what Kant would call transcendental, since it is not concerned with the necessary contribution of our mind to our relation to objects. Yet what makes this activity truly significant for transcendental philosophy is the dependence on the underlying a priori principle, the principle of purposiveness [Zweckmäßigkeit]. Purposiveness is the causality of a purpose; a purpose is a cause of an object's reality if that object is "possible only through a concept" (V:220, emphasis mine). Purposiveness thus presupposes some kind of design by some kind of concept (ideas, empirical concepts, etc.).

Since purposiveness is ascribed to nature, the sum total of all objects rather than a limited set of objects in nature, we remain ignorant about the designer's actual purposes. We assume a supersensible creator of nature or, in other words, "the ground of the unity of the manifold" (V:181) underlying nature such that it is responsive to the particular character of our discursive

understanding, allowing us to search for concepts, rules and laws. Kant speaks in this context of nature's "suitability to the cognitive faculties" (V:189). Only insofar as we apply this principle can we apply the RPJ. Without this principle our cognition of empirical nature would be merely contingent, insofar as the non-being of the object of cognition can be thought of, thereby threatening the unity of experience. This is just as true for our simple example of the classification of Socrates as it is for more complex and demanding inquiries, like an appropriate interpretation of the phenomenon of superposition in quantum mechanics.

To elaborate on the scope and impact of the transcendental principle for reflection, I firstly would like to discuss judgements of taste, since they most powerfully reveal the principle of purposiveness. These kind of judgements, having the basic form "x is beautiful", are characterised by their subjectivity and universality. They are subjective, since 'beautiful' cannot operate as a discriminatory feature in an objective judgement, unlike marks like 'red', 'extended' or 'wooden'. They are universal, since in the act of expressing a judgement of taste, we autonomously demand the agreement of all human beings, regardless of whether every single one of them does in fact agree. We feel forced to demand agreement to a judgement lacking determining concepts, since it is based on a feeling of pleasure expressed in an animated free play of our cognitive faculties. This pleasure is not triggered because an individual preference is fulfilled, but precisely because we do not have a private interest in the object and still feel pleasure.

Let us consider an aesthetic judgement. Judging the beauty of an object in nature (say: a kingfisher scratching the motionless water in an idyllic valley), we are unexpectedly confronted with nature which is, for whatever reason, benevolent in respect to our mind, such that our mind is set into a state of animation and pleasure. Kant speaks here in a rare poetic mode of "nature, which is extravagant in its varieties to the point of opulence [an Mannigfaltigkeiten bis zur Üppigkeit verschwenderische Natur]" (V:243), ranging from the sounds of the birds in the sky to the colours and shapes of creatures never seen before by a human eye. It is the "cipher [Chiffreschrift] by means of which nature figuratively speaks to us in its beautiful forms" (V:301), indicating that nature is responsive to the particular constitution of our

mind. Such a state of mind immediately forms a judgement of taste.

In considering this mental state, it becomes clear that an a priori principle underlies the feeling of pleasure, since nothing in nature expresses its responsiveness to our mind – this feeling can only be our contribution. The absence of a determining concept in a universal judgement can only depend on an a priori principle called "purposiveness without a purpose" (V:220). This principle is not comparable to the ignorance of the novice in the bike mechanic's workshop, who has not yet learned about the actual functions of all the tools and parts, thus having – as Leibniz would say – a clear, distinct, inadequate account of the objects, because she can recognise and distinguish the various objects, vet lacks the knowledge to 'adequately' enumerate the relevant marks. The predicate 'beautiful' differs from an inadequate placeholder like 'a bike mechanic's tool', because we will never have the slightest clue what nature's beauty might be good for. The object that we depict as beautiful is, in the words of Kant, "without any purpose, merely an intrinsically yet contingently manifested purposive correspondence with the need [Bedürfnis] of the power of judgement" (V:347).

Inquiry of Nature

Surely, we cannot know anything about the supernatural cause of nature's order, as Kant's transcendental idealism teaches us, but judgements of taste reveal that we presuppose nature's responsiveness to the particularity of our mind. The *same* presupposition is at work when we inquire into the behaviour of empirical nature. Orienting ourselves in the 'labyrinth' (XX:214) called the empirical manifold, we proceed under the presupposition that this manifold is organised such that we can find these regularities, as the reference to Schrödinger's cat made clear.

Consider a methodological maxim like Ockham's razor (lex parsimonae, cf. V:182), stating that among competing hypotheses, the one with the smallest amount of assumptions is preferable. Surely, this is meant to ease and simplify our explanations and theories, but it is, in Kant's view, also a manifestation of the principle of purposiveness that frames our inquiry into nature's manifold empirical forms. Ockham's axiom states, in other words, that nature is responsive to the particular discursive constitution of our mind. If we were to prefer instead the most complex and demanding hypotheses for each single phenomenon, the unity of experience soon would be threatened in light of nature's possibly infinite manifold of empirical laws. Hence the RPJ must apply Ockham's razor, presupposing, for the sake of its own use, that nature is organised in concert with the discursive character of our mind, even though we do not have insight into the necessity of the regularities we discover. Or, phrased slightly differently, it must anticipate that nature is ordered in such a way that objects are adequately predicated by concepts and the systematic order of concepts in genera and species is adequate to represent the order of nature.

Teleological Judgements

If we frame it this way, it seems difficult to integrate teleological judgements into the picture sketched so far. These judgements, elaborated in the Kritik der teleologischen Urteilskraft (KtU), are concerned with natural purposes, Naturzwecke. For such organised bodies it is true that the parts themselves constitute the whole by generating and maintaining each other reciprocally at the same time. The kind of objects that are both cause and effect of their own activities cannot be described by a mechanical account, since on such an account of bodily movement over time only an external object can change the speed and direction of an object. For Kant, a mechanical explanation is characterised by (i) the conservation of the total quantity of matter, (ii) inertia and (iii) the equality of action and reaction. Hence a body capable of reproduction is "in the highest degree contingent" (V:360) within this mechanical model. As Kant notes in Der einzig mögliche Beweisgrund zu einer Demonstration des Daseins Gottes (1763) (BDG) in regard to contingency, the 'cancelation' [Aufhebung] of the organised body "is not the cancellation of all that can be thought." (II:83)

Surely we could, up to a certain point, explain events like the heart's pumping, the laying of eggs or the formation of bird INTRODUCTION

9

swarms in purely mechanical and descriptive terms. Kant explicitly supports the extension of mechanical explanations as far as possible, vet unlike his Early Modern predecessors, he is also sure that a "Newton for a blade of grass" (V:400) will never exist. In other words, a mechanical-deductive quantifiable explanation of the production, regeneration and reproduction of a blade of grass is not within the reach of the human mind. Such epigenetic processes are in Kant's view inexplicable by means of mechanical laws. In this respect it is, moreover, helpful to contrast the internal teleological order of the object with a 'technical' account of purposiveness, ascribed to artefacts which are obviously designed according to certain concepts. The chair built by the woodworker accords with a certain design (a concept) of reason, just like the robot, the clock and all other artefacts we can think of. These artefacts are surely purposive in a non-demanding pragmatic sense available in the Grundlegung zur Metaphysik der Sitten (1785) (GMS) and elsewhere as Absicht. In contrast, a natural purpose has a "self-propagating formative power [bildende Kraft]" (V:374), since it can reproduce and regenerate itself and all of its parts; therefore the organisation "infinitely surpasses all capacity for a similar presentation by art" (V:384) and, unlike artefacts, cannot be explained by mechanics. Hence this formative power of the closed organic system is inexplicable within a mechanical model. This is not to say that objects of this kind cannot be known as objects of experience, having categorical features, but what is contingent is the way a natural purpose, like a blade of grass, was generated in a non-mechanical way. If we intend to find any kind of regularity in its behaviour, we must, according to Kant, presuppose that the object is fully organised purposively.

Yet as mentioned above, it is hard to align this so-called 'objective' account of purposiveness with the 'subjective' account revealed in judgements of taste and manifested by maxims for the inquiry into nature. In the former case purposiveness is ascribed to the internal organisation of a real object and seems unresponsive to the peculiar discursive character of our mind; in the other case purposiveness is ascribed to nature and concerns the relation of nature to our mind. Moreover, the teleological judgement "x is a natural purpose" seems determining rather than reflective while a judgement of taste is reflective. Finally, while subjective

purposiveness lacks a purpose, objective purposiveness has a (natural) purpose. If these worries are valid, the book falls apart into vaguely related parts, which, interesting as they are in themselves, do not genuinely contribute to transcendental philosophy. It is a main goal of this dissertation to avoid such a piecemeal reading and instead emphasise the common transcendental aspect.

Reflective Judgement

In response to the first two worries, it is indeed stated explicitly in §65 that nature's organisation cannot be considered analogous to any kind of causality we know of. Thus, if we make such a teleological statement, it is less a matter of subsuming something under a feature ('natural purpose') than of reflection, i. e. searching for concepts, laws and regularities, including the reflection on methods, means and selection criteria. We assume the organised body to be a purpose of the whole and its parts, but this is a preliminary description in order to be able to parse its 'infinite' regularities, rather than a conclusive, determining judgement. Unlike an inert object, an organised body demands a particular attitude of the investigating subject during the search for regularities. Hence, like a judgement of taste, a teleological judgement expresses primarily our ignorance of the underlying purposive order, making it a reflective judgement guided by the principle of purposiveness without a purpose. Thus in describing the object as a natural purpose, the reflecting subject acknowledges the limits of our peculiar mind rather than determining the object.

Still, there seems to be an important difference in *scope*; while the objective purposiveness holds of the internal organisation of an *object*, subjective purposiveness holds of *nature*. Yet I would like to point out that Kant introduces a *maxim* in the Dialectics of the *KtU* "for the sake of the cognition of natural laws in experience, in order to arrive by their means at concepts" (V:386 f.). This maxim, stating that some objects in nature (i. e. natural purposes) must be judged according to ends, is a maxim of the RPJ to allow a "coherent [*zusammenhängendes*] experiential cognition" (V:386). As a maxim of the RPJ, it is a manifestation of the principle of purposiveness to allow cognition of objects whose causality is inexplicable for us. In other words, the principle

states that nature is organised by a supersensible ground in concert with the discursive character of our mind. Hence it is an a priori contribution of our faculty by way of which the particular reflective mode of the power of judgement is enabled and directed, making it a genuine part of transcendental philosophy. The inner purposiveness of natural purposes challenges the RPJ to reflect on the object, led by the principle of purposiveness, to arrive at a "thoroughgoing interconnection of empirical cognitions into a whole of experience" (183).

It is easy to misunderstand this account of the principle of purposiveness, given that in prior critical works the categorical imperative as well as the categories are considered to be *constitutive* of our relation to nature. Within the realm of practical action the categorical imperative enables and determines morality: within the realm of the theoretical cognition of nature the categories enable and determine cognition. It is different in the case of the principle currently at issue, which is regulative, only providing a rule for the sake of its own use. Such a principle does not constitute our judgements such that they have the form of the categories or of the categorical imperative. While the principle of purposiveness is indispensable for the regulation of the act of reflection, it is not entailed in the result of this activity: we can, for instance, use the category of quantity in a judgement (e.g. "some men are learned"), but we cannot express the principle of purposiveness in a judgement of reflection. Yet I believe that the regulative status of the principle does not compromise its transcendental status in any way. What is relevant, in my view, is that the principle in play does make an irreplaceable and necessary contribution to the way we relate to objects in nature.

Question of Inquiry

In the previous pages I have presented an overview of the argument that will be developed in more detail in the chapters to follow. Yet it must be noted that this argument is not at all obviously presented in the KU. One of the reasons why the KU is subject to cherry-picking is the absence of a well-stated question of inquiry as well as the manifold of themes and the regulative status of the main principle. For instance, while the approach

sketched above recommends taking seriously the role of the principle of purposiveness, leading scholars like McLaughlin (1989, p. 124) and Ginsborg (2004, 35 f.) read Kant as if he intends to rule out the role of purposiveness in our explanation of natural purposes. Although such an argument is philosophically valid, it is also true that, in light of the previous discussion, it fails as an apt interpretation of the work.

Many of these kinds of misunderstandings can be avoided if the question is asked what the book, as a unity, is concerned with. What is its method? What is the main argument? How is it related to previous critical works? How do the internal parts relate to one another? General questions like these are, considering the current state of the research on this work, more important than piecemeal issues. Unfortunately, Kant did not answer these questions with the desired concision and clarity. possibly due to the fact that the KU does not proclaim a new question, method and framework of a new philosophical approach, but rather supervenes on an existing philosophical system which he could assume his readership's familiarity with. Indeed, more than once Kant refers quickly to the available transcendental framework, most clearly in the Preface to the first edition of the KU and sections I-III of the published introduction. Hence in this thesis I will try to address these kind of general questions with the necessary subtlety and exegetical patience. The previous discussion of the principle of purposiveness can be considered as a first condensed lead to the answer.

Obviously, I am not the first to address this problem or ask these questions. It has been a matter of debate since the early reception. In recent years lots of excellent and inspiring work has been published by mostly Anglo-American scholars who acknowledge the unique contribution by the RPJ. Without those works the current study would likely not have existed in this form. Let me mention a few of the defining moments in recent years. The work by Ginsborg (especially Ginsborg (1997)) deserves special mention, because she has made the community of Kant scholars aware of the contribution by the RPJ to cognition, while her account of 'primitive normativity', as a naturalised version of the principle of purposiveness, finds application in contemporary discussions around normativity and perception. Zuckert (2007)

INTRODUCTION

13

has laid out a comprehensive and penetrating interpretation of the whole work, granting a central role to the RPJ and its guiding principle, the "unity of the diverse" While stressing on the one hand the importance of the logical functions of judgement for our capacity to judge ($Verm\"{o}gen\ zu\ urteilen$), Longuenesse (1998) also shows how that same capacity on the other hand prepares the sensual manifold for conceptualisation: reflection (transcendental and empirical) plays a key role in her account of the latter activity. Carefully reconstructing the birth of the third Critique out of the previous critical work in anticipation of German Idealism, Förster (2012) delivers a thorough and revealing interpretation of the third Critique with a key role for the contrast with non-human faculties in §§76–7 of the KU.

Still, I believe that my study can contribute to the current state of the discussion, because I aim to focus on situating the work within Kant's transcendental philosophy more than on the details of the various discussions within the KU. I do not want to deny that Kant can offer us a provoking though out-dated⁵ philosophy of biology, just as his theory of aesthetics proves to be fruitful outside of transcendental philosophy, yet his main concerns are accessible only after the focus and scope have been set. Thus compared to the majority of works on the KU, the current inquiry offers a somewhat different perspective. My intention is not to diminish the importance or philosophical relevance of the issues mentioned, but rather to suggest that these questions are based

 $^{^3\}mathrm{Zuckert}$ (2007, p. 5). See 5.4 for my critique of her take on the principle of purposiveness.

⁴This is just a quick and insufficient summary of the most fruitful and influential work on this topic in recent years. It does not do justice to the rising amount of excellent and original contributions to other issues in the KU. In the course of this inquiry I will specify my position in discussion with the literature. The recent discussion has been more or less cut-off from the rich German scholarly tradition that developed fruitful insights with similar precision as their analytically trained colleagues a few decades later. Works with a similar broad focus are Liedtke (1964), Peter (1992), Düsing (1968) and Cassirer (1921). I will also take these works into consideration. ⁵I write 'out-dated' because, since the discoveries of Pasteur in the 19th century, biology has shifted its focus from organisms to sub-organic chemical processes. This does not disqualify Kant's position per se, since philosophy, according to my firm belief, cannot be verified or falsified by science, but it makes it largely irrelevant for contemporary biology. See Zammito (2006) for a similar stance.

in a particular framework and that they can be approached in a meaningful way by considering that framework.

I believe this can be accomplished by focusing on the various scattered remarks on the transcendental purport of the work, on the particular status of regulative guidance and reflective judgement as well as on the work's relation with the previous critical work, such that the particular contribution of the KU can be framed in those terms. This will result in an interpretation that emphasises the irreplaceable contribution of the RPJ, guided by its transcendental principle of purposiveness, to our interactions with nature, along the lines mentioned above. Highlighting this hidden line of thought will hopefully make the unity and coherence of the work clearer. If I have been able to offer a coherent perspective on this hidden line of thought in the KU, the study will have been a successful endeavour in my estimation.

This might give rise to the expectation that my account has the advantage of giving a full account of the whole work. Unfortunately, I must admit that this is not a goal I am able to reach, since the work, regardless of my holistic intentions, points in various directions. As most commentators agree, it is hard to see how the elaboration of the sublime has relevance for the overarching argument of the book, mainly because purposiveness does not play a role here (cf. V:247).

Charitable Approach

To conclude this introduction, I will say a few words about my treatment of the KU. There are various possible ways to treat a historical philosophical work that could all be situated somewhere on the scale between exegetical commentaries and systematic considerations. These poles do not exclude each other, rather they are mutually dependent. Systematic considerations might help thorny questions of interpretation, whereas a piece of commentary might help to clarify the argument or a particular concept in the original text. Therefore, in this study both approaches can be found: of course I will not develop an argument which is – from my perspective – unsound or nonsense; at the same time Kant's text is the primary source from which to derive the philosophical aim

and the argument. If I express disagreement, it will be directed at my fellow commentators, whose writings forced me to sharpen my position and gain a better grasp of the primary source, rather than to the primary text. At the same time I often rely on the results of studies by other commentators, especially where issues external to the KU are at stake.

Based on the *principle of charity*, stating that the philosopher's claims are sound and interesting, I will present a reading that is willing to patiently search for the argument and to maximise sense, rather than criticise every (seeming) internal discrepancy. The rationale behind this affirming approach, which many might discredit as naive and a trifle dull, is that I consider the piecemeal approach, which lives from a fast and impatient judgement, to be mistaken. If the reader does not proceed carefully in the KU. there is a risk that the diverse content will fall apart. The subtle and complex argument in the KU, intertwined in many ways with the previous critical work, is served better by a charitable and reconstructive approach. This reading might itself be exposed to the objection of cherry-picking, since I select terms and passages in support of my approach while leaving out others. Yet since I offer some close-readings of longer passages in chapter 2 and chapter 5, I am forced to react to problematic and conflicting passages. Moreover, I have tried to stick as closely as possible to the main text, though I could not avoid an inspection of his private notes (the so called Reflections), lecture notes, unpublished versions, letters and other miscellanea, which I have tried to treat as carefully as possible.

Because the structure I will try to highlight is scattered across various works and passages, it is not obvious in what order all of these aspects should be discussed. It is possible that the order chosen might appear contingent to the reader. Therefore, I will try to situate the contribution of each chapter in the orientating sections at the opening of each chapter as well as in the overview below. Moreover, I have grouped the chapters in parts that represent self-contained steps in the inquiry. In the first part I will plead for my approach and distinguish it from other approaches, both from a bird's eye perspective and in more detail. The second part will provide two main concepts, adopted from other critical works, that are crucial to understanding the

scope and application of the principle of purposiveness. Finally, equipped with the right terms and an awareness of the focus, I can discuss in the *third part* the principle of purposiveness, both its justification in the Deduction and its contrast with the principles of reason, as well as the act of reflection. Let us now have a closer look at the structure of the coming chapters.

Part I: Overview of the Reading

When we take an interest in a house, we will likely observe it from various angles at a certain distance before we enter it to appreciate the inner details. I am proceeding similarly. I will begin with an overview before diving into the details in part 2 and 3. A reader who is only interested in a certain aspect, such as reflection or the relation of the KU to the Appendix, can safely start in the corresponding chapter. A system of internal references will direct her to another outlook where necessary. This full introduction should suffice to understand the broad outlines of the approach.

The first part serves mainly introductory purposes to gain the right perspective on the KU. I will establish my transcendental reading and defend it against distinguished counter-arguments.

In the 1st introductory chapter, Approaching the Third Critique, I will discuss the difficulties for a successful interpretation stemming from the KU's structure. In my view, an interpretation should be able to acknowledge and establish the unity of the work. Subsequently, I will introduce my transcendental approach, stating that we should focus on the contribution of our cognitive faculty to the way we relate to objects. That contribution is provided by the RPJ backed by the principle of purposiveness: while we reflect, i. e. search for general representations, we presuppose nature's responsiveness to the peculiar discursive character of our mind. Finally, to clarify and situate my approach within the secondary literature, I will discuss two interpretations – namely a systematic and an epistemological one – that acknowledge the unity of the KU, yet do not offer satisfying interpretations, as I will argue.

Having given an overview of the transcendental purport of the

KU, the $2^{\rm nd}$ chapter, Structure of the Third Critique, highlights the implications of this reading for the main parts on Aesthetics and Teleology. Although it has become common to treat them separately and independently, I suggest emphasising the contribution of the RPJ and its guiding transcendental principle to focus on the common aspects. In both aesthetic judgements and judgements about natural purposes the RPJ plays a central role, as I will argue, since these judgements are reflective and thus guided by the principle of purposiveness. Yet they are not simple instances of the faculty's application, but deliver irreplaceable contributions to the argument in the work. The aesthetic judgement reveals the purposiveness of nature in regard to the particular structure of our mind, while the teleological judgement helps to block the threat of theology.

Part II: Realm of Experience

Supervening on former critical works, the KU silently adopts important terms with far-reaching consequences for the KU's argument. To appreciate their central role in the transcendental argument, it is necessary to elucidate them. Much of what I will discuss here becomes relevant at a later stage of this study.

The 3rd chapter, The Account of Nature in Categorial and Empirical Respect, discusses the concept of nature as developed in the Analytics of Kritik der reinen Vernunft (1781/7) (KrV). To understand the scope and implications of this account, which is not discussed properly in the third *Critique*. I have devoted this chapter to it. I suggest that nature is a key term in the KU, since the principle of purposiveness does not simply refer to certain objects, but to nature taken as the sum total of lawfully organised objects of experience. A formal aspect demands the lawful organisation of nature according to a universal causal explanation rather than local causal explanations. The so-called material account of nature refers to the objects of experience, thereby securing the *immanence* of nature. In our act of reflection we must live up to both demands. Furthermore, I will stress the distinction between the categorical and the empirical level of nature; the second Analogy will be used to exemplify this distinction.

In the course of this study I have had more than one occasion to recall that, following the principle of purposiveness, nature is in concert with the particular character of our mind. Therefore, it is crucial to gain a deeper insight into this form of our mind. The 4th chapter, *Discursiveness*, discusses this peculiar discursive character of our (human) mind, namely the dependency of our cognition on concepts. I will start this chapter with a characterisation of our mind from the KU to identify the problem we are facing. Secondly, I will discuss the fundamental distinction between the two stems of cognition; having a sensual and an intellectual stem, we are discursive and sense-dependent beings - this particular constitution of our mind determines the form of our cognition. Finally, I will touch upon the comparison with so-called limiting concepts, since they support the particularity of the constitution of our mind and, moreover, the transcendental claim that the ground of the form of our cognition is not written into the constitution of objects, but rather into the constitution of the subject.

Part III: Reflective Power of Judgement

If the previous parts mainly had an introductory and preparatory role within the overall study, the current part aims to focus on the results of the transcendental approach. These results are related to the reflective power of judgement and its guiding transcendental principle.

In the 5th chapter, The Principle of Purposiveness and its Deduction, the accounts of nature and discursiveness will play a central role. The Deduction presents a threat to the unity of our experience that must be answered to restore its unity. Whereas we can determine the most general laws of nature a priori (see chapter 3), the special empirical laws of objects of experience cannot be determined by these general laws or by further a priori principles, making the possibly infinite amount of necessary laws contingent for us. Yet this is not a comfortable place to rest, as the continuous and coherent unity of experience is threatened. Hence, the RPJ must presuppose, for the sake of its own use, the necessary lawful unification of empirical objects, even though at the same time these objects must remain contingent for us. After my

19

reconstruction of this justification I will defend my interpretation against criticism of such a 'thin utility reading'.

The 6th chapter Overlap evaluates whether the RPJ and its guiding principle fall prev to the so-called overlap. According to many scholars there is an overlap between the role of the RPJ and reason as well as between the principle of purposiveness and reason's heuristic maxims. This would have dramatic consequences for my reading, because it would make the transcendental aspect, which I have been eager to emphasise, obsolete. These maxims guide the understanding towards (scientific) systematicity, demanding maximum simplicity of the organising principles and maximum diversity of the continuous phenomena. After an extensive discussion of reason's contribution to cognition and its heuristic principles I will conclude that this threat does not apply, since the principle of purposiveness is more fundamental than the heuristic application of reason. Rather, I will argue that they are interdependent. Besides avoiding this threat, I will also need to clarify the role of the principle of purposiveness and the result of reflection, which is crucial in light of the lack of consensus among the community of Kant scholars on that matter.

The $7^{\rm th}$ and last chapter, Reflection, will discuss the task and status of the RPJ. Firstly, I will introduce the task of the RPJ by looking at the various available task descriptions in the KU and the Lectures on Logic. I will argue that reflection can be more demanding than most of the interpreters suppose and therefore gives more weight to the RPJ. Apart from the search for a more general representation as a process of selecting features in order to allow a classification, the descriptions also include (re-)consideration of the method, means and selection criteria. All these accounts of reflection depend on the same activity and, moreover, they are all guided by the presupposition that nature has been organised in accordance with "that specific form the power of judgement demands" (IX:94), i. e. conceptual representations.

Part I Overview of the Reading

Chapter 1

Approaching the Third *Critique*

1.1 Orientation

Discussing various ways to handle the many difficulties in interpreting the third *Critique* in 1.2, this chapter takes what I will call the *transcendental approach*. Generally speaking, such an approach foregrounds a central faculty and its a priori principle in order to solve a genuine threat to the unity of experience. In our case, we read the RPJ as presupposing nature's responsiveness to our discursive cognitive faculty in order to arrive at concepts by means of reflection. This way, we can block the contingency threatening the unity of experience of empirical objects.

This reading is a reaction to an old yet persistent complaint that can often be heard among members of the community of Kant scholars: namely that the KU is, regardless of its many thought-provoking arguments, at the end of the day nothing but an assortment of unrelated and independent themes, somehow falling apart into Aesthetics and Philosophy of Biology plus a rewrite of the Appendix to the Dialectics in the KrV (in the following: Appendix). As valid as this first impression might be, it

also dismisses the common problem throughout all of these cases. On my reading presented in 1.3, Kant is not primarily interested in the above-mentioned themes, rather they all deliver essential contributions to the transcendental issue and therefore appear in this particular constellation.

Surely, historically speaking, this is not the only reaction possible to the so-called 'piecemeal reading'. In 1.4, the final section of this chapter, I will discuss alternative approaches, proposed by other scholars, which are in agreement about the unity of the book while they disagree what this common problem consists of. According to the first line of thought, the KU is primarily reacting to an epistemic problem, namely the contingency of the possibly infinite manifold of empirical nature. Pointing to judgements of taste, I will answer that the principle of purposiveness nevertheless transcends its epistemic application. According to a second approach, the principle bridges the infamous gap between the realm of nature and the realm of freedom. As a response, I will show that this problem is not severe, and even if it were, the solution would be too weak. In both cases I think that they touch upon important issues, however the approaches are secondary to the transcendental issue.

1.2 Challenge

In some cases the controversies about a philosophical work, a project or a system are directed towards a more fundamental question concerning the very problem and status of that work. This is often the case if that status is rather opaque since the relation between the various arguments seems missing, and a consequent formulation of the main question is absent. For instance, it makes quite a difference whether Wittgenstein's *Tractatus* presents an attempt to recognise ineffable things as nonsense or a work of philosophical therapy producing nonsense that appears to make sense "in order to get the reader to acknowledge the illusion". Getting the scope right to secure the coherence of the work is in such cases more important to gain common ground than fighting

⁶Cf. Moore 2012, 238 f.

25

about details. Only in light of the problem of the full work can the parts be fully uncovered.

I suggest that this is, to a certain degree, true for Kant's philosophy in general and for the third *Critique* in particular. For reasons of brevity I cannot argue for the first claim, and my line of questioning does not compel this, but the second claim is an important premise for which I would like to provide at least some support. Many critics have noticed that Kant did not state unambiguously what the problem, the function and the results of the third *Critique* are.⁷

While Hegel called the third *Critique*'s synthesis of practical and theoretical philosophy in one theological principle the "most interesting point of the Kantian system"⁸, it was rather his counterpart, Kant's early polemic advocate Schopenhauer in his *Kritik der Kantischen Philosophie*, who set the tone by pointing out Kant's remarkable talent to play around with the concept of purposiveness so often that he was in the position of writing a book on it.⁹ This was, Schopenhauer added, the result of Kant's architectonic obsession rather than an internal coherent argument.

I have decided to omit a general overview of the reception and instead add references where relevant and necessary. See the Introduction to Düsing (ibid., pp. 13–23) for helpful although slightly polemical references to Germaphone works from the 1860's onwards, mainly from the neo-Kantian era. Zuckert (2007) offers an overview of the contemporary reception in Anglo-American philosophy. For a quick overview of the early reception in German Idealism, see Horstmann (1989, p. 158) and Förster (2012), for a selection of scholarly work on this topic, cf. Fulda and Horstmann (1990). See Kuhlenkampff (1974) for an extensive selection of documents from the early reception on the aesthetics. For an overview of the reception concerning the biological aspect of the KtU, cf. Zammito (2006).

⁷Cf. Horstmann 1989, p. 159.

⁸Hegel (1971, p. 321). Translation my own. See Förster (2012, p. 135) for other welcoming responses by philosophers belonging to the German Idealist movement.

 $^{^9}$ Schopenhauer (1977, p. 648). This is not just Schopenhauer's worry. A similar statement can be found in Marc-Wogau (1938). Baeumler (1967, p. 15) dismisses the work as old's mans nonsense, a *Greisenschrulle*. Kuhlenkampff (1978, pp. 1, 38, 42) frankly admits he does not see any connection between the Aesthetics and the Teleology. According to McLaughlin (1990, p. 3) the KtU "could perhaps best be seen as a fourth 'Critique'". Moreover, see Düsing (1968, 52 n.) for a list of (neo-Kantian) authors doubting the close connection between the various accounts of purposiveness.

More than 200 years later the confusion about Kant's aim in this work has not been solved. Nowadays, instead of accusing Kant of plain confusion, the usual tendency among his readers is to cherry pick a particular topic and discuss that independently of the rest of the book. For instance, it is telling that some of the main monographs produced in recent years stick to a discussion of just one of the two main parts of the work. 10 These works are highly interesting, stimulating and relevant; surely it is not my aim to undermine these approaches in any way. Moreover, among piecemeal readings there is often an awareness of the transcendental dimensions, notably in Allison (2001), Goy (2017) and Wieland (2001), but, unlike my approach, it is not the main focus in these works. I believe that prior to these isolated issues it is more important to discover the main problem the work is trying to solve, since it will also set the stakes for the particular problems discussed in the work.

The confusion around its primary argument manifests itself in the reception. As reported by Stadler (1874) in $19^{\rm th}$ and by Zuckert (2007, p. 3) in the $21^{\rm st}$ century, among the critical works the KU attracted the least attention in the Kant community and beyond. Whereas the first and second Critique inspired lots of self-standing philosophical positions, ranging from phenomenology through neo-Kantianism to major developments within Anglo-American analytical philosophy, the third Critique has not been a great source of inspiration, which might be related to the lacking consensus concerning its aim among its recipients. ¹¹

¹⁰For instance, Allison (2001), Kuhlenkampff (1978) and Guyer (1997) on aesthetics, McLaughlin (1990) and Löw (1980) on the philosophy of biology. This pattern is also noticeable in the neo-Kantian era: e. g. Cohen (1889) on aesthetics, Stadler (1874) on systematicity in science. Notable exceptions are, for instance, Ginsborg (2015) (in fact a collection of essays), Zuckert (2007) and Düsing (1968).

¹¹I do not want to deny that there are philosophers who have developed work drawing on the spirit rather than the letter of the third *Critique*. One might think here of Cassirer's later philosophy of symbolic forms, Arendt's adaptation of Kant's theory of reflective judgements in political philosophy or, lately, the account of 'primitive normativity' by Ginsborg. The early reception in German Idealism has been inspired by the *KU* more than by any other work by Kant, but it is hard to isolate its role.

27

Story of the Frustrated Reader

To motivate Schopenhauer's worry, let us consider some of the problems a reader might encounter. The kind of disappointment and frustration I will try to communicate can easily be understood by any scholar who studied the KU for a while. It is important to add that the story I am about to tell does not represent my reading; I kindly ask the reader to keep this in mind until I will present my own suggestion on page 31. What I will say about the fundamental architectonics is not necessarily false, but the lack of persistence of our imaginary reader to find a coherent argument is, from my perspective, not in accordance with the *principle of charity*.

Looking into the table of contents the work seems to discuss a rather bewildering variety of themes ranging from aesthetics, culture, organisms to teleology. Anyone interested in a common underlying problem will soon turn away, due to the seeming lack of coherence, and look for a different entrance into the work. Most likely, she will suppose, the Introduction will give the answer, especially as the Introduction is coined 'encyclopedic' in the Erste Einleitung in die Kritik der Urteilskraft (1793) (EEKU).¹² An introduction, according to Kant, is encyclopedic insofar as it is not a mere preparation to the main text, but itself the completion and nexus of the system.¹³ Hence, if anywhere, the answer to the

 $[\]overline{12}$ The initial draft of the Introduction, edited and revised early October 1789, was rejected by Kant due to its extensive length and lack of clarity, according to the letter to his publisher De la Garde on the 09/03/1790 (XI:143). See for more exegetical background, Klemme (2009). By March 1790 Kant wrote a new and shorter introduction which appeared in the published KU. Interestingly, in 1793 Kant sent the initial draft to Jacob Sigismund Beck who was planning to edit a collection of shorter writings by his former teacher.

In general, one might say that both versions are compatible and complement each other: whereas the EEKU has a more detailed discussion of reflection and its principle, the second edition includes a Deduction of the principle of purposiveness. Furthermore, the EEKU takes the principle primarily as the systematicity of nature whereas the Introduction primarily emphasizes the responsiveness of nature to the peculiarity of our mind. In 5.2 I will discuss this Deduction and its relation to the EEKU in more detail.

¹³Cf. V:241 f.

puzzle must be found here. Once more, the reader will be disappointed: at least at first sight it seems very unclear how systematicity, judgements of taste and teleological judgements internally hang together. ¹⁴

Moreover, the KU lacks an own domain of application. Unlike the first *Critique* on the conditions of the possibility of nature and unlike the second Critique on the conditions of the possibility of freedom, the third Critique lacks a clearly distinguished 'dominion' (V:174). Whereas the concepts of nature (i. e. the categories) and the moral law are a priori lawgiving and therefore constitutive for their respective dominions, i. e. nature and freedom, the principle of the reflective power of judgement is not determining and therefore does not govern a priori possible objects. Accordingly, while Kant announces a metaphysics of nature and a metaphysics of morals, which have been prepared in the first and the second Critique, "there will be no special part for the power of judgement in that" (V:170), since it is not and cannot be part of the 'doctrin' (V:194) of philosophy. 15 Following a strict account of transcendental philosophy as concerned only with the constitutive principles of our mind, such a principle is not of immediate relevance for a transcendental project.

While the principle of purposiveness is not lawgiving for a new domain, the Introduction also makes note of a systematic role of the KU: its main aim is said to bridge the gap between nature and freedom, i. e. to bring nature into accordance with the moral law. ¹⁶ If this is the case, our scholar thinks, it might explain why the principle of purposiveness does not constitute a dominion itself, but rather is the third overarching element to bring these

 $^{^{14}\}mathrm{Even}$ a penetrating interpreter like Cassirer (1921), who acknowledges the central role of the RPJ, traces the seemingly random combination of aesthetics and biology back to Plotin. Backed by the KU, Goethe also suggested an internal coherence of beauty and organisms. But such a detour misconceives the necessary contribution of the RPJ to our relation to organic and to beautiful objects. As far as I can see, beauty and organised nature are only discussed in this one single work because of the application of the principle of purposiveness in both fields.

 $^{^{15} {\}rm In}$ this respect, Wieland (2001, p. 30) notes an 'asymmetry' concerning the role of the KU within Kant's critical system. $^{16} {\rm Cf.~V:}176.$

29

fundamental different dominions together. Although this itself seems a fruitful and interesting thought backed by some passages, it is far from sufficient to explain the relevance of the aesthetics and natural purposes for the overall project. Even if these contingent (non-necessary) occurrences confirm the purposive order of nature, as Kant believes they do, at the very best, our reader thinks, they may 'assist' or 'strengthen' the moral agent's belief in a just God who designed nature such that we can act morally.¹⁷

Yet this theological allusion seems to conflict with Kant's well-known belief that we can only experience objects in inner or outer sense insofar as the given manifold of intuitions appear in space and time as the forms of our intuition. All of a sudden Kant openly discusses how an intellectual intuition designs nature to fit our discursive faculty, seemingly disregarding transcendental idealism. At this point, there is not much that holds Kant back from taking a mystical position similar to that of Hugh of Saint Victor, stating that the world resembles a book written by God's finger. ¹⁸ Our frustrated reader is not willing to accept this position.

Now turning our attention to the main cognitive faculty in the work's title, it is not at all obvious how the RPJ can offer a unique and genuine contribution. It seems hard to strictly distinguish its activity from that of the determining power of judgement, since searching for (reflection) and applying concepts (determination) go hand in hand.

Additionally, according to many commentators, the positive application of reason in theoretical respect, as introduced in the Appendix to the Dialectics of the KrV, resembles the reflective activity of the RPJ. These commentators believe that the power of judgement strives to systematise our empirical cognition, just like reason does. Instead of the maxims of reason – homogeneity, heterogeneity, continuity – it is the principle of purposiveness that guides this activity, but the content and result of that principle are identical to the maxims. Again, our reader cannot be convinced why it is worth studying a

 $^{^{17}{\}rm I}$ will discuss and criticise such a systematic interpretation in 1.4.2. $^{18}{\rm Cf.}$ Eco (1993, p. 91).

brand new Critique on a faculty already available in the first Critique.

Criteria for a Successful Reading

The point of this story of the frustrated scholar is to show how easily the book can be dismissed if we cannot respond to the initial and most primary issue, namely the genuine contribution of the third *Critique* to Kant's transcendental project. If we cannot overcome these problems, Schopenhauer's worry becomes true and the book evokes more questions than compelling arguments. On the other hand, if we can give a satisfying answer to this question, it will become a rewarding and fascinating source, shedding much light on the transcendental project and the reflective interaction with empirical nature within such an account. Thus, the most important criterion of a satisfying interpretation is the ability to give an account of the book's main problem, namely its unity. Additionally, this problem and its solution should be novel while also compatible with the critical work done in the other *Critiques*: the Introductions and Preface contain clear indications how Kant aligns his project with earlier critical works and thus should be treated as a contribution to the critical project. ¹⁹ Taking a step back to get into focus what the main problem is will not answer all issues, as I would like to emphasise, but it helps to determine the philosophical value of the work and offers a guiding thread for a reading.

To recapitulate the problems we encountered in the above story, we might identify a lack of coherence, a fear of a post-critical project and an assumed overlap with the Appendix. The *lack* of coherence, which is implicitly presupposed in every piecemeal reading, will be answered by emphasising the overall role of the principle of purposiveness. Stressing the regulative role of this principle will temper the worries about Kant's post-critical aspirations, namely his tendency in the KU to seem to be disregarding the dictum of transcendental idealism that we can gain cognition

¹⁹I am in agreement with Cassirer (1921, 289, 310 f.), Förster (2000, p. 232), Zuckert (2007), Allison (2000, 79 f.), Rodríguez (2012, p. 191). Chapter 3 on the account of nature is, among other things, an attempt to highlight this continuation within the critical work.

of nothing but appearances. What has been called an *overlap* between the activities and principles of reason and the RPJ will turn out to be a mutual dependency of the principle and activity of the RPJ and of reason.²⁰ These preliminary answers will be developed in the following section and, more extensively, over the course of the next chapters.

1.3 The Transcendental Approach

Although our imaginary scholar will likely deny that Kant offered any clues to the main argument in his last Critique, I believe it is a fruitful and charitable hypothesis to assume that Kant did present these clues. To begin with, I will consider some rather simple observations that will suggest the Critique's transcendental status. Subsequently, I will discuss in more detail how the account of transcendental philosophy aligns with the established account in the KrV.

Already the title of the KU indicates that the main faculty is a faculty called the *power of judgement*. Reading into the published Introduction will reveal that this power is considered in its reflective mode, strictly distinguished from its determining mode.²¹ Following a straight-forward definition in section IV of the Introduction, reflection is the activity of searching for more general rules.²² Later, in chapter 7, we will elaborate why this activity includes reflection on the method, means and selection criteria.

 $^{^{20}}$ I will present the full argument in chapter 6, most extensively in 6.5. For an overview of the literature, see note 509 on page 240.

²¹Contrary to a common belief stating that determining and reflecting power of judgement are closely connected (e. g. Guyer 2005, p. 12), a strong case for the genuinely novel status of the RPJ, as the main faculty in the KU, is made in Teufel (2012, 306 f.). I will defend a similar stance in 7.2.

²²A more extensive definition can be found in the KtU: "But the reflecting power of judgement is supposed to subsume under a law that is not yet given and which is in fact only a principle for reflection on objects for which we are objectively entirely lacking a law or a concept of the object that would be adequate as a principle for the cases that come before us." (V:385, emphasis mine, cf. V:179)

It is mentioned explicitly in the Introduction as well as the Aesthetics and the Teleology that this reflective activity is backed by the principle of purposiveness of nature. The published Introduction even offers a Deduction of that principle. This principle is not, as some suggest, a presupposition of a systematic order of cognition, as I will argue in chapter 6. Rather, according to this principle, nature is ordered (by a supersensible architectonic mind) such that it is in concert with our peculiar discursive faculty and therefore can be understood by us. Thus, in order to perform the act of reflection, we must consider nature to be such that we can grasp it by our discursive intellect in order to arrive at more general representations. In other words that are closer to Kant's own: since nature responds to our needs it seems like it has been designed for our kind of discursive faculty. 23

Moreover, the work's title reveals the *critical character* of the work. Along with its title and Kant's own explicit remarks on the chosen method, it takes an approach that we usually refer to as *transcendental*.²⁴ The study inquires into the a priori contribution of our mind to the cognition of objects of experience: "how are synthetic a priori judgements possible?" (V:289) This contribution of our mind is in this case the principle of purposiveness mentioned above. Although the faculty is not determining, it is nevertheless concerned with the mind's a priori contribution to cognition and therefore belongs to transcendental philosophy. I will elaborate on this position on the following pages.

The famous comparison with the intuitive understanding in §77 is meant to show that it is a peculiarity of our faculty, rather

²³ This thought is expressed in various passages. For example, purposiveness often is described as "suitability for human understanding" (V:186). Appropriate is nature for us, for our faculty of judgement: "Purposiveness or fitness of nature to our power of judgement is (even with regard to its particular laws)" (XX:204 n., cf. V:182, 185 f., 188, 193, 194, 346, 359, VIII:250, XX:201, 212 n., XX:213 f., 221, 233). Elsewhere Kant writes that nature takes our cognitive faculty into consideration: "rather, this condition of the possibility of the application of logic to nature is a principle of the representation of nature as a system for our power of judgement, in which the manifold, divided into genera and species, makes it possible to bring all the natural forms that are forthcoming to concepts (of greater or lesser generality) through comparison." (XX:212 n., cf. V:193)

²⁴Cf. part IV and V of the published Introduction, V: 289, 395. Cf. Förster (2015).

than of natural purposes, that we must apply the principle of purposiveness to cognise these objects. In other words, it depends on the peculiar a priori constitution of our mind that we judge in a particular way. That a beautiful scenery, stimulating the free play of our cognitive faculty, responds to the particular constitution of our mind, is not entailed in the object, but it depends on a principle contributed by the RPJ.²⁵

Looking at the general set-up in the *table of contents*, there are further reasons to assume that we are dealing with a work of transcendental philosophy. The formal structure of the work is familiar: in the Analytics the application of an a priori principle is justified, in the Dialectics a self-imposed conflict of the mind is resolved by considering objects of experience to be appearances backed by a supersensible substrate²⁶ in light of the particular character of the human mind. In the Methodology the consequences for the sciences are discussed. Obviously, the latter is lacking in the *Kritik der ästhetischen Urteilskraft (KaU)*; there is not and cannot be any science of the beautiful²⁷, according to Kant, since he denies the existence of universal criteria of beautiful objects.

Surely, the structure repeats itself in the two main parts, yet this is due to the lack of a true dominion – like nature or freedom – and its respective legislation, and surely does not negate the transcendental character altogether. Finally, the necessary application of this principle is justified in a transcendental Deduction, which we will study more closely in chapter 5 and is considered "the most important of a critique of this faculty [RPJ, TM]" (V:169).

Hence, unlike the imaginary reader, I have found some indications for what is meant to be the main entrance into the work, namely its transcendental character.²⁸ As we have seen, Kant indicates a faculty, a synthetic a priori principle and a realm of application to inquire into the conditions of its possibility. The various stances

 $^{^{25}}$ Cf. V:181.

²⁶Cf. V:344 f.

²⁷Cf. V:355.

 $^{^{28}\}mathrm{Cf.}$ Geiger 2009, p. 545. Allison (2001, p. 13) also thinks that the KU is a proper part of transcendental philosophy, because a new faculty resting on an a priori principle is introduced.

on the beautiful, on the sublime, on culture and on biology are welcome and interesting side-effects, yet stand in the shadow of the main transcendental issue, which is the necessary contribution of our cognitive faculty to our relation to objects of experience. To back this stance I will provide textual evidence and elaborate on how it relates to the principle's regulative status.

"A transcendental principle is one through which the universal a priori condition under which alone things can become objects of our cognition at all is represented." (V:181)

"I call all cognition transcendental that is occupied not so much with objects but rather with our mode of cognition of objects insofar as this is to be possible a priori" (B25, emphasis mine).²⁹

Based on the citations facing us, I conclude that Kant's account of transcendental philosophy in the KU accords with the account deployed in the KrV. Such an account considers transcendental philosophy as probing the a priori conditions under which we can relate to representations of objects, without determining the object. In other words, we consider the object only in relation to our cognitive faculty in order to determine the subjective a priori conditions of this relation, regardless of how the object is constituted independently of our contribution. Surely, this seems to conflict with an account that promotes the constitutive character of our contribution. For instance, describing transcendental philosophy

²⁹Cf. "transcendental propositions (which are concerned with how the understanding applies this, quite purely and without needing any source other than itself, to the a priori cognition of things)." (Über eine Entdeckung, nach der alle neue Kritik der reinen Vernunft durch eine ältere entbehrlich gemacht werden soll (1790) (ÜE), VIII:214)

Cf. "Hence neither space nor any geometrical determination of it a priori is a transcendental representation, but only the cognition that these representations are not of empirical origin at all and the possibility that they can' nevertheless be related a priori to objects of experience can be called transcendental." (A56/B80 f). Cf. A11, IV:293, V:170, 181, 395, 398 R4634, XVII:618 (1771–5), Ameriks 2003, p. 330 and Conant 2012, p. 15.

Since the KU puts much pressure on this version of the transcendental question, I have decided not to discuss other formulations, like those inquiring into the use, extension and limits of the faculty (IV:276) or how synthetic judgements a priori are possible (IV:276, V:289, VIII:188 f.).

by the criterion that "the form of objects has to be explained by the forms of our knowledge", Carl (2013, p. 89) overlooks the fact that this is not the case for regulative principles. The concept of purposiveness is *not* a feature of objects of experience, like the categories, and therefore *not* a form of the objects, as Carl states, but rather a subjective principle solely determining the mode of our reflection. Following the account from the KU, it is irrelevant whether that transcendental principle is constitutive or regulative as long as it delivers an irreplaceable a priori contribution to the subject's relation to objects. Neither derived from experience nor a psychological disposition, the principle is a priori, preceding all applications of the RPJ.³⁰

Status of Regulative Principle

Some interpreters have found post-critical aspirations in the KU.³¹ To overcome the worry that Kant is transgressing the carefully set boundaries of the realm of experience, leading "straight to Hegel"³², I will discuss the regulative status of the principle of purposiveness in the following. Whereas the Dialectic to the KrV allowed cognition only within the limits of nature and considers all judgements about supersensible objects to be purely metaphysical speculation (see 6.2), an inattentive reader might get the impression that Kant overturns transcendental idealism in the third Critique. In contrast, I believe that Kant is both consistent and careful when it comes to the regulative status of the principle of purposiveness.

Regulative principles do not constitute an object, as the mathematical schemata are constitutive predicates of every object, but regulate the rules applied by the understanding towards a further

³⁰Cf. V:180–2. Cf. "The use of our cognitive faculty in accordance with principles, and with this philosophy, extend as far as a priori concepts have their application." (V:174). Cf. "only so far as that [seek empirical laws according to the principle of purposiveness, T. M.] takes place, can we make progress in experience and acquire cognition by the use of our understanding." (V:186)

³¹E. g. Tuschling (1991). According to Löw (1980, 204 ff.) Kant gives up the principle of causality as a necessary condition for the possibility of cognition.

³²Pippin (1996, 552 n.). e. g. V:168, 184.

organisation and cognition to enable a continuity of experience.³³ It follows that the principle is *not* lawgiving within a domain, like the categories or the categorical imperative, such that the form of all objects must accord with these principles. This principle is *not* ascribed as a feature to the objects; nature is not organised in a purposive way. For instance, Kant is very clear that the feeling of pleasure and displeasure assumes the organisation of nature by a transcendent intelligence, "yet without upsetting the border posts which a strict [*nachsichtliche*] critique has imposed on the latter use of them." (XX:244 f.) Rather, as we have just seen, the principle of purposiveness is a necessary yet subjective and regulative principle applied by the cognitive faculty itself to continue the inquiry into empirical nature.

Having established a continuity with the account of transcendental philosophy in other places of the critical corpus, I will support this approach with further quotations highlighting the transcendental character of the KU. This is, in our case, the cognition that the principle of purposiveness is a priori and therefore independent of experience, and moreover, offers insight into the way it can refer a priori to objects of experience. I believe these quotations offer good textual evidence against complaints about the lack of a well-framed research question in the KU.

"And likewise the critical investigation of a principle of the power of judgement in these cases is the most important part of a critique of this faculty." (V:169)

"The introduction of the power of judgement into the system of the pure faculties of cognition through concepts rests entirely on its transcendental principle" (XX:242).

In respect to the KaU Kant states the following:

"Thus the critique of taste itself is the art or science of bringing under rules the reciprocal relation of the understanding and the imagination to each other in the given representation [...]. It is *art* if it shows this only in examples; it is *science* if it derives the possibility of such

³³Here is a definition of regulation: "furthering and strengthening the empirical use of reason by opening up new paths into the infinite (the undetermined) with which the understanding is not acquainted, yet without ever being the least bit contrary to the laws of its empirical use." (A680/B708)

a judging from the nature of this faculty as a faculty of cognition in general. It is with the latter, as transcendental critique, that we are here alone concerned." (V:286, last emphasis \min^{34})

In the latter passage Kant gives clear directions about where the focus of a so-called 'transcendental critique' lies. His focus is directed at a certain form of judgements enabled by the particular constitution of our mind. More precisely, judgements of taste depend on the a priori principle behind the reflective mode of the power of judgement.³⁵ The feeling of pleasure is identical with the purposiveness of nature expressed in the free play of the faculties.³⁶ Thus, the uninterested feeling of pleasure, prompting us to judge something as beautiful, is actually an expression of the a priori principle of purposiveness. The discovery of the principle of purposiveness turns the feeling of pleasure and displeasure from a topic of 'empirical psychology' (IV:427³⁷) into a topic for critical inquiry.³⁸

This transcendental character is mentioned explicitly in contrast with 'dogmatic' theories of purposiveness in §§72–4 and in contrast with other thinkable infinite minds. For instance, what Kant finds lacking in the only approved dogmatic theory, namely Jacobi's theism, is a reference to the constitution and limitations of our human mind.³⁹ Unlike a dogmatic position, Kant states here in line with the above references that a critical approach is characterised by focussing on the subjective conditions rather than on the object.

Elsewhere, Kant adds in a slightly ironic tone of voice that hardly anyone other than a transcendental philosopher would admire nature for its purposiveness, since in folk psychology we do not experience this principle itself, but only the application in judge-

³⁴Cf. XX:251.

 $^{^{35}}$ Cf. the title of §12: "The judgement of taste rests on a priori grounds." (V:221)

³⁶Cf. V:222.

³⁷Cf. A69, B35.

³⁸Interestingly, in his famous 1787 letter to Carl Leonard Reinhold (X:514), Kant announces the discovery of the principle of purposiveness directly after he expresses his growing confidence in the transcendental methodology.

³⁹Cf. V:395, Lord 2011, 86 f. Theism states that the ground of nature is a transcendent and intelligent being.

ments of taste.⁴⁰ Others might admire nature for being beautiful, but the transcendental philosopher is also aware of the principle behind this kind of judgement. Moreover, acknowledging that the power of judgement has no role to play in doctrinal philosophy, Kant notes in the Preface that regarding this power "the critique serves instead of theory" (V:170, translation modified). If anything, this is a work of critical philosophy.

Within this context I would also like to point out how this transcendental aspect is supported by the emphasis on the peculiarity of our mind in the reconciliation of the Antinomy in the KtU and elsewhere in the book. This peculiarity is highlighted in a comparison with other possible minds that do not rely on the RPJ and its principle. Kant adds that such a comparison "would certainly deserve to be elaborated in detail in transcendental philosophy" (V:401). Consider, for instance, the following passage from §5:

"Agreeableness [Annehmlichkeit] is also valid for nonrational animals; beauty is valid only for human beings, i. e., animal but also rational beings, but not merely as the latter (e. g. spirits), rather as beings who are at the same time animal; the good, however, is valid for every rational being in general" (V:210).⁴¹

According to the quote, the ability to judge something as beautiful is a discriminatory feature of *human beings*. Whereas the animal's mind consists in nothing but sensibility and therefore responses to impulses, human beings are of a different kind. Aside from a sensible stem, which we share with animals, human beings have an intellectual stem, fundamentally changing the character of our sensibility. ⁴² Generally, I take Kant to be a representative of what Boyle (2012, p. 395) calls the classical view on the distinc-

⁴⁰"[O]nly hardly anyone other than a transcendental philosopher would be capable of this admiration, and even he would not be able to name any determinate case where this purposiveness proved itself in concreto, but would have to think of it only in general." (XX:216)

⁴¹This passage is considered to be a main entrance into the KU by Förster (2003, 230 f.): "§§5 and 77 of the third Critique [...] demarcate a field that is exclusively human, hence the subject matter of transcendental philosophy."

⁴²I will discuss this interplay of our two stems in more detail in 4.3. The comparison with other possible minds will be discussed in 4.5.

tive character of human beings, namely rationality: "rationality transforms all of our principal mental powers, making our minds different in kind from the minds of nonrational animals." Since animals lack intellectual or conceptual capacities, they might experience what is subjectively agreeable [angenehm], but judging something as beautiful, demanding universal agreement, is only possible for human beings, according to Kant.

The fact that human beings can — and hopefully regularly do — enjoy beauty is therefore relevant from a transcendental point of view. Why? Because it tells us something about the particular mode of our relation to objects. The feeling of pleasure we enjoy while judging an object's beauty is accompanied by an insight into the purposiveness of nature, organised in concert with the particular constitution of our mind. This is not because nature is purposive, at least not insofar as we are justified to claim, but because the harmonious and animated interplay of our cognitive faculties indicates that it is as if nature is purposively organised for our mind.

In the KtU a comparison with a purely intellectual being⁴³ sheds further light on the particular constitution of our mind. In that context, Kant argues in a famous passage that teleological judgements about natural purposes are peculiar to mankind. This time Kant does not distinguish between human beings and animals, but highlights the distinction between the RPJ and a further thinkable intellectual being: the intuitive understanding (cf. 2.3.3).

While it is unavoidable for us to judge the internal organisation of natural purposes in teleological terms and, therefore, to end up in an antinomy between the maxim to describe teleologically and the maxim to explain mechanically, this is not true for an intuitive understanding. An intuitive understanding immediately grasps the parts in relation to each other and to the whole, therefore she is not required to presuppose nature's purposiveness. Yet we do *not* belong to the kind of beings that can immediately grasp the parts in relation to the whole, with the consequence that we cannot but apply a teleological framework. This is a

⁴³That all instances of divine intellect are non-sensual follows from the receptive and limited character of sensibility. See *Religionslehre Pölitz* (1783–6) (V-Th/Pölitz), XXVIII:1053 f.

characteristic of our human faculties, and not e. g. of an intuitive understanding, therefore a critical inquiry needs to consider the consequence of this particular constitution of our mind.

Above I have argued briefly that the principle of purposiveness is the most relevant element of the KU from a transcendental point of view. I have shown that this principle stands out in comparison with other beings having only one of our two stems of cognition. That nature is organised in a way that is accessible by our discursive faculty is an a priori presupposition made by the RPJ and must be considered as a peculiar contribution by our faculty. Other beings relate to representations differently. The focus in this inquiry will be directed at this contribution. Once more, this contribution is called transcendental in the sense laid out above.

I hope that the previous pages have shown from a bird's view perspective how I will treat the KU. The details will follow in the chapters to come. So far one might gain the impression that I am mostly interested in the Preface and the Introductions. since that is where many of these methodological remarks are situated. These are valuable insofar as this inquiry is concerned with the methodology to establish the unity of the KU. Yet my holistic treatment demands support by the two main parts on Aesthetics and Teleology. My hypothesis would be worthless if it did not help to interpret the main bulk of the book and to parse the distinct contribution of judgements of taste and teleological judgements. Moreover, the impression might be given that these kind of judgements are simply instances of this principle, while they are actually irreplaceable steps in the argument of the KU. In chapter 2 I will zoom in on the particular arguments presented in these parts. Currently, I would like to complete the preview of my approach by sketching the contribution of both parts to the argument.

Contribution of Both Parts

Judgements of both beauty and of natural purposes are applications of the principle of purposiveness without a purpose. 44 In both cases we assume nature to be organised in concert with the particular character of our mind, even though in both cases we do not have insight into the causality behind this organisation. Nature appears beautiful to us for no reason; natural purposes manifest a causality unknown to us, but can be described teleologically. Furthermore, both kinds of judgements are reflective judgements, namely judgements that do not determine the object, but rather express the impossibility of determination.

The argumentative contribution of both parts is the following: While the role of the feeling of pleasure in judgements of taste is to unveil the principle of purposiveness, the role of judgements about natural purposes is to confirm its regulative status facing the theological threat. To argue this point, we must bring to mind what judgements of taste are like: highly subjective judgements, based on a feeling of pleasure, deprived of any interest in or appetite for the object, making a universal claim about an object's beauty. Following Kant, the validity of such an autonomous judgement is based on nothing but reflection and the underlying a priori principle, 45 therefore the principle is *completely* unveiled by these kind of judgements. Furthermore, Kant points out that the extension of the application of this principle can only be determined in combination with its teleological counterpart. 46 Thus, while the judgement of taste reveals the principle, the teleological judgement, facing the question of the ground of possibility of the purposiveness of nature⁴⁷, poses the question of what the status

 $^{^{44}{\}rm I}$ am sympathetic to Zuckert (e. g. 2007, p. 368) who considers the exhibition of (material and formal) purposiveness to be the common element of both parts of the KU.

⁴⁵Cf. V:191.

⁴⁶Cf. "However, once the capacity of the power of judgement to institute a priori principles for itself is granted, then it is also necessary to determine the scope of this capacity, and for this completeness in critique it is required that its aesthetic faculty be recognised as contained in one faculty together with the teleological and as resting on the same principle, for the teleological judgement about things in nature also belongs, just as much as the aesthetic, to the reflecting (not the determining) power of judgement." (XX:244).

⁴⁷Cf. V:301.

of that principle is and the "scope $[\mathit{Umfang}]$ of this capacity" (XX:244).

In the latter case, the antinomy in the Dialectics of the KtU will force us to apply the principle not just to certain 'examples', but to nature as the sum total of all beings, thereby aligning the scope of both maxims at work. Such a distribution of tasks easily gives rise to Schopenhauer's worry, especially if the Introductions are taken as yet another application of purposiveness. Indeed, many believe that the Introductions discuss how this principle of purposiveness paves the way toward a systematic body of knowledge. In my view this leads to an unnecessary multiplication of this principle's instances. Instead, the Introduction should be considered as a further application of subjective purposiveness. Even if we agree that the Introduction basically discusses another application of subjective purposiveness, the objection is still valid: there are two accounts of this principle which seem only loosely connected. Yet for Kant there is not much doubt that these are in fact two instances of the same principle. Indeed, in both cases we are dealing with purposiveness without a purpose: whether they are applied realistically to the internal causality of the organisation of single objects or formally to the relation between nature and our mind is surely different, but the basic structure is identical: in both cases an incomprehensible causality is supposed to be purposive to enable reflection.⁴⁸

Here I would like to consider a further objection to my approach, namely that I overlook an important difference between subjective (formal) and objective (real) purposiveness. Such a distinction is applied most clearly in part 8 of the published Introduction and part 12 of the EEKU. In the first case, which is paradigmatically an aesthetic judgement, subjective purposiveness is ascribed to the object through the feeling of pleasure and displeasure. In the second case, which is paradigmatically a teleological judgement, objective purposiveness is ascribed to an object by the understanding and reason. ⁴⁹ Subjective purposiveness is, in other

 $^{^{48}}$ The main thesis of Breitenbach (2009) is that the structure of reason, i. e. intelligibility, is – analogically – ascribed to nature in order to cognise living objects (cf. Breitenbach (ibid., pp. 162–6)). In contrast, my account of purposiveness does *not* imply intelligibility for us. 49 Cf. V:193.

words, "the correspondence, Übereinstimmung, of [the object's] form in its apprehension prior to any concept with the faculties of cognition" (V:192). In contrast, objective purposiveness is the correspondence of the object's form with the possibility of the object. The objection states that I neglect this difference and overly stress the identity of the account of this transcendental principle in both cases. 50

The main reason this distinction does not play a considerable role in my reading is that it is unclear to me what the exact status of this distinction is. While it is mentioned in both Introductions, it is hardly referred to at a later stage in the work. Especially when it comes to objective purposiveness, Kant seems to suggest that it is the result of an "extensive investigation" (XX:229), involving conceptual faculties. Yet I have pointed out, and will elaborate more extensively in 2.3, that a teleological judgement, having the form "x is a natural purpose", is not a determination. Otherwise it would no longer be a matter of reflection by the reflective power of judgement.

Especially in the KtU Kant is very clear that natural purposes have a causality that has "no analogy whatsoever with any causality we know of." (V:375) Ascribing purposiveness, as "a constitutive principle for the derivation of its products from their cause" (V:361), to these objects would violate the application of the transcendental principle of purposiveness. I will argue in 2.3.2 that a teleological judgement instead states that we are not able to parse the causal order of the natural purpose. At best, a teleological judgement will allow further mechanical explanation while the causality of the inner workings of the object remain an enigma. While a teleological judgement itself is not a determination, it allows determinations by the understanding and reason. In that latter sense, natural purposes are, according to the analogy of an end, the "presentation of the concept of a real (objective) purposiveness" (V:193).

In §69, in the run-up to the famous antinomy, Kant mentions that the RPJ must serve as a principle itself "since it [the principle, T. M.] is *not objective*, and cannot be presupposed as a suffi-

 $[\]overline{^{50}}{\rm I}$ am thankful to Johannes Haag for bringing up this issue. $^{51}{\rm Cf.~V:194.}$

cient ground for cognition of the intention of the object" (V:385, emphasis mine). In my reading this citation suggests that the objective principle of purposiveness is not the sole principle at work in the KtU; where we cannot proceed with a mechanical explanatory apparatus, the subjective principle of purposiveness operates as principle in order to reflect on natural purposes. It is crucial, as I will argue throughout this book, that this principle is not objectively ascribed to the object.

1.4 Alternative Approaches

Above some introductory words have been said on the set-up of my approach. In this section I will discuss the motivation behind two alternative approaches that acknowledge the danger of a piecemeal reading and instead opt for a comprehensive reading. Nevertheless, these readings are not sufficient in my view, although I do want to stress that I am to a certain degree sympathetic to them and seek to situate them within my own reading. The so-called epistemological approach considers the KU primarily as an epistemological project. The other reading I will present sees the main contribution of the principle of purposiveness in its ability to bridge the gap between nature and freedom.

I hope this discussion will help to situate my own approach. I must add that these readings are formulated here in a rather artificial and even polemical way and the authors collected under each reading do not agree fully among each other. Yet for reasons of clarity I ignore their inner disputes.

1.4.1 The Epistemological Approach

According to what I will call the *epistemological approach* the third Critique is primarily "relevant to the fundamental question of how cognition is possible".⁵² The inquiry of the KU does not

⁵²Ginsborg (2015, p. 3). In an interview Ginsborg elaborates on this view: "it is interesting that the *Critique of Judgement* can be seen as answering the question of how cognition is possible from the empirical perspective,

conflict with the first Critique, since the KU approaches the same question from an empirical perspective. Thus, the distinction between a transcendental and an empirical level is a prerequisite for this position. Following this view, the first Critique covers the general conditions under which nature is possible, yet leaves out how we orientate ourselves in the empirical manifold. According to these interpreters, this task is mostly ascribed to the RPJ backed by the principle of purposiveness. Hence, the true innovation in the KU is to discuss empirical cognition from a transcendental perspective. Some have adopted the view that it is an extension of the schematism, mediating between the categories and empirical concepts. 53

whereas the Critique of Pure Reason raises questions about the possibility of knowledge from a transcendental perspective." (Breitenbach 2015, p. 57)

An exotic version of this approach can be found in Ameriks (2003, pp. 332–4). On his view, Kant's philosophy stands out for its focus on the transcendental conditions underlying knowledge "in between ordinary empirical judgement and theoretical science" (ibid., p. 330). Since biology and aesthetics fall into this domain of knowledge, it is, on his view, the task of a transcendental philosopher to explore all of the conditions underlying this knowledge. If you follow this approach, it is not clear where it will end. One might ask how many more *Critiques* Kant should have written in order to cover all the disciplines 'in between', varying from chemistry to sociology?

⁵³As a prominent advocate of Neo-Kantianism, it is hardly surprising that such a view can be found in Cassirer (1923, p. 12). On his view, the principle of purposiveness, primarily concerned with the individuation of objects, is an annex to the Schematism. The justification of the application of the categorical structure is in his view the principle of purposiveness, presupposing a conceptual and coherent structure of nature:

"In der Tat war das transzendentale Schema dem Vermögen der Urteilskraft zugewiesen worden, so daß alle neuen Fragen, die sich daran anknüpften, zugleich zum Ausgangspunkt einer erneuten kritischen Revision dieses Vermögens werden mußten. In der ersten Fassung der Frage fällt die Allgemeinheit im wesentlichen mit der Verstandesregel, die Besonderheit mit dem Datum der sinnlichen Anschauung zusammen. Die Kritik der Urteilskraft hebt demgegenüber das Problem sogleich auf einen höheren Standpunkt, indem sie nach dem Grund und dem transzendentalen Recht der Besonderung der Verstandesgesetze selbst fragt."

Longuenesse (2005, 229 f.) believes that the RPJ is prepared in the Amphiboly, mainly because these concepts are the (discursive) form "or mode of ordering our representation [...] by virtue of which individual things are conceptually determined".

According to Guyer (2005, p. 29) the role of the RPJ is "to attempt to apply the pure concepts of the understanding to empirical intuition

Facing the wealth of insights in the first *Critique*, it is remarkable, to say the very least, that, from the KU's perspective, the result of the first Critique is brought back to an inquiry into the most general and abstract conditions of nature.⁵⁴ Already in the B-Deduction Kant is quite explicit about the impossibility of deriving empirical laws and rules from the categories.⁵⁵ There is, as Buchdahl (1992, p. 213) famously wrote, a 'looseness of fit' between the categories and empirical laws. We are not just, in Kant's famous words, the lawgiver of nature, but also stand in a receptive relation towards the empirical manifold. In other words, the categories are ignorant of the empirical manifold since they exclusively focus on the most common features of objects in general. That is because categories do not determine the content of the representations, but just the lawful formal order of the spatiotemporally distributed representations in nature. Whereas the categories are accessible a priori, the empirical features can only be found with the help of some activity – i. e. reflection – on the subject's side.⁵⁶

This situation might lead to a problem: although the categories are the most fundamental features, in the absence of which an object cannot be recognised by us, further empirical features, such as texture, smell or weight, are left out of the picture. The cannot a priori determine these kind of empirical features, which are therefore contingent, such that their non-being can be thought of, yet at the same time we demand lawfulness and systematicity of nature. Having said that, there is nothing that excludes the possibility of being confronted with behaviour of objects indeterminable by our cognitive faculty, as the variety of genera and kinds in empirical nature is too big to be grasped, such that we cannot find a coherent order among the heterogeneous empirical objects of nature. Because the objects of nature would not agree with our expectations, the condition for the unity of experience would not be fulfilled.

through intermediate empirical concepts which represent a systematization of our experience". Cf. Teufel (2012, p. 311) for a similar position.

 $^{^{54}{}m E.}$ g. V:167.

⁵⁵Cf. B165.

⁵⁶Cf. Pollok 2014, p. 522.

⁵⁷Cf. Zuckert 2007, §1.4. Cf. V:180, XX:209.

⁵⁸There is in fact quite some textual support for this problem, e. g. V:179 f., 185, 386, XX:202, 209, 213. I will discuss this in more detail in chapter 5.

What is distinctive of the interpreters collected under the moniker of an epistemological approach is that they believe Kant's account of the RPJ to be responding to this open problem in the KrV. Following this line of interpretation, the principle of purposiveness offers a solution to the tension between transcendental and empirical laws by presupposing a systematic order of nature. We must project a kind of empirical systematicity in order to find empirical regularities that can be fitted into a system of empirical laws. ⁵⁹ Leaving the Appendix aside for the moment, the principle of purposiveness thus enables us to find the lawful empirical order as a unified and taxonomical order and therefore to extend our a priori anticipation of empirical nature.

My Stance towards the Epistemological Approach

This reading has various advantages. I acknowledge the distinction between a categorical and an empirical order to gain access to the project of the KU and the related impossibility to derive nature's manifold forms from the categories (cf. 3.4 and chapter 5). Furthermore, I do agree that the RPJ, directed by the principle of purposiveness, is the central faculty under consideration in the KU.

However, I have some worries about the restrictive nature of this approach. First of all, I will recall an issue which has already been mentioned and will be elaborated further in chapter 6. This concerns the *overlap* between both the principles and tasks of the RPJ and reason that arises if the principle of purposiveness is reduced to systematicity and the task of the faculty is the systematisation of our cognition of nature. Thus, we are facing a serious accusation, mostly because, according to this type of approach, the KU is primarily occupied with this task. It is hard to see how the KU genuinely contributes to the critical project if this overlap exists; therefore the reading endangers the status of the whole work. I will argue at a later point that the act of systematisation depends on the RPJ.

⁵⁹Cf. Cassirer (1921, 312 f.), Friedman (1992b, pp. 245, 250). See chapter 6 for a more extensive inquiry into this position.

Furthermore, I believe that, following such an account, the role of aesthetic pleasure will be lost. Whereas the KtU could have been an Appendix to the first Critique, as Kant notes himself⁶⁰, judgements of taste cannot contribute to cognition. The judgement "x is beautiful" does not contribute in any way to our cognition of the object x. 'Beautiful' is not a demonstrable feature of an object.⁶¹ The sentence 'the beautiful house is beautiful' does not make sense, as the conversation partner could have a different account of a beautiful house. Although aesthetic experience is founded upon the same activities from which cognition originates, it is very different from it, since it does not determine objects. In contrast, for Ginsborg (e. g. 1997, 73 f.) the aesthetic judgement seems just a special case of the act of concept formation.

Recall that it is only taste – and not empirical cognition – that reveals the a priori principle of purposiveness and therefore deserves its own *Critique*.⁶² It is, moreover, well-documented that the third *Critique* was in the first instance meant to be a 'Critique of Taste'.⁶³ This is not meant to disqualify the contribution of the teleological power of judgement to the critical project, but only to stress the irreplaceable role of the aesthetic power of judgement. Judgement of taste is the paradigmatic account of a reflective judgement.

In addition, I would like to point out that the principle behind concept generation, as it is discussed in the Introductions, is primarily a principle of the aesthetic power of judgement. Liedtke (1964, p. 20) sharply emphasises that the Leibnizian maxims

⁶⁰Cf. V:170, 194.

⁶¹Cf. V:342. "Now the judgement of taste does pertain to objects of the senses, but not in order to determine a *concept* of them for the understanding, for it is not a cognitive judgement." (V:339, cf. 194)

⁶²Cf. XX:244, V:193.

⁶³Cf. letter to Reinhold, 28/12/1787, X:515. Tonelli (1954) has reconstructed the genesis of the construction of the third Critique, Zammito (1992) adopts it. According to Tonelli, Kant started the KaU immediately after finishing the B-edition of the KrV. Writing the first Introduction, he discovered that objective purposiveness is also relevant for organisms, which led him to write the Analytics of Sublime, the KtU and finally the Preface and second published introduction. But this does not necessarily mean that Kant was not already working on the second part; therefore this reconstruction cannot be accepted with absolute certainty. In fact, the basic account of a natural purpose was already available in Kant's writings on human race (cf. VIII:181 and 87f.).

for reflection, e. g. the greatest manifold based on the smallest amount of principles (cf. 5.2), must be ascribed to the aesthetic power of judgement. What seem to be purely heuristic maxims for methodological observations, with striking similarities with the regulative principles of reason, in fact have a very different source, namely the aesthetic power of judgement.⁶⁴ That the principle of purposiveness finds heuristic application in these maxims is a happy consequence, but not the primary application. Moreover, the objective account supervenes on the subjective account of purposiveness, since ascribing purposiveness to nature allows us to apply the same principle to particular objects.⁶⁵

What also goes missing in such an interpretation is the theological echo of the principle of purposiveness, which becomes quite conspicuous in the Dialectics of the KtU. As soon as something is characterised as designed or design-like, as it is in the case when we describe an object as a natural purpose, an external designer comes into play. When the design exceeds our human abilities as designers, we must suppose a supernatural designer and therefore open the gate for a theological explanation.⁶⁶ Surely, Kant is aware of this trap and therefore stresses the regulative status of the principle and the peculiarity of our cognitive faculty (see 6.3). The complicated dynamics in the Dialectics of the KtUwill seem excessive if this threat is not acknowledged, which is a pattern running through all the interpretations that have been collected under the epistemological approach. For them purposiveness equals an order of cognition, namely systematicity, rather than the limit of human cognition.

Finally, the overlap with reason's contribution to cognition in the Appendix indicates, from my perspective, the problem with a view placing so much emphasis on the systematising role of the RPJ. Even though the principle of purposiveness is a necessary condition for any inquiry into empirical nature, it is not the

⁶⁴Liedtke (1964, p. 20) refers to V:193.

⁶⁵Cf. "nevertheless, because we already have a ground for ascribing to nature in its particular laws a principle of purposiveness, it is always possible and permissible, if experience shows us purposive forms in its products, for us to ascribe this to the same ground as that on which the first may rest." (XX:218)

⁶⁶Cf. "as if an understanding (which is not ours) contained the ground of the unity of the manifold of its empirical laws." (V:180 f., translation modified)

case that it regulates cognition towards the ideal of the greatest manifold and the greatest unity of nature in search of a more integrated and unified system of knowledge, like the maxims of reason. The principle of purposiveness is situated on a more fundamental level, as it assumes a priori that nature has been organised in concert with the particular constitution of our mind. I will come back to this issue in chapter 6.

1.4.2 The Systematic Approach

There is good deal of textual evidence that the KU is supposed to mediate between theoretical and practical critical philosophy. Such an approach is often called 'systematic', because it reads the KU as responding to an internal systematic problem while bringing the three works into a final systematic order.⁶⁷ Both at the outset and at the end of the Introduction – in section II and IX – Kant mentions the gap between the sensible (nature) and the supersensible (freedom). This gap is problematic insofar as it implies that the normative demand of practical reason does not affect nature in any way. In order to overcome this gap and allow freedom to influence nature, the principle of purposiveness operates as a medium, since this principle opens up the possibility of a final end according to which nature has been organised to accommodate action motivated by the moral law. Thus, following this reading, the KU is supposed to argue that nature is compatible with the idea of freedom.⁶⁸

⁶⁸E. g. Bartuschat (1972), Henrich (1994), Krämling (1985), Cassirer (1921, p. 290), Recki (2001). For a review of further literature, cf. Düsing (1968, 102 f. n.).

⁶⁷Under the header of a systematic approach I am not discussing the completion of the critical project, since I am not aware of a criterion to measure the degree of completeness other than the delivery of transcendental principles for each of the cognitive faculties. By that criterion, Kant was allowed to state that he had completed the transcendental system both in the first and in the second Critique; before the 'discovery' of the principle of purposiveness the feeling of pleasure and displeasure was considered to be a mere empirical faculty without relevance for transcendental philosophy (cf. IV:427, A69, B35). Yet this is a matter of history rather than the result of philosophical analysis. Within the context of the current inquiry I cannot rule out the possibility of a further faculty led by an a priori principle. For a similar position, see Kuhlenkampff (1978, pp. 179–181).

Gap between Sensible and Super-sensible

According to the current approach, transcendental idealism leads necessarily to a strict distinction between the natural and the supernatural. While the supernatural is strictly excluded from cognition, Kant recognises that the idea of freedom determines moral judgements, hence the supernatural is constitutive for the realm of morality. Thus, following Kant's juridical terminology in section II of the Introduction, the regime of the understanding, namely the natural laws (categories), and of practical reason, namely the moral law, are a priori lawgiving within their own domain [Gebiet]. But there is a deep 'obvious gap' (V:175⁶⁹) between those legislated domains due to their different sources,

A more subtle position can be found in Düsing (ibid., Ch. 3): he considers the consequence of the principle for Kant's practical philosophy to be a further aspect of this principle, but not the only one. Yet I still tend to ascribe this systematic approach to him, since he clearly describes the transition from nature to morality as the central systematic theme of the KU, criticising others for neglecting the issue (Cf. ibid., p. 102). Ultimately, Düsing wants to argue that the third Critique leads to the idea of the human being as the final end of nature, allowing us to realise our aims in the world (cf. ibid., 10 f., 44–8, 212–237). In his view, purposiveness is a nexus of pre-critical physico-theology, the highest good, regulative ideas, and organic teleology. Even though he sometimes acknowledges that the early Kant had already distanced himself from Voltaire's caricature of teleology ("we all got a nose to put our glasses on", (ibid., p. 35)) and Leibniz's account of completeness, he is not able to distinguish the naive account of physico-theology (see §63 on relative purposiveness) sufficiently from the critical account of purposiveness in the KU. Such a physico-theological account of purposiveness is problematic in my view insofar as purposiveness is explicitly not concerned with so-called relative purposiveness or utility [Nutzbarkeit] for humans or other actors in the ecosystem (Cf. V:366–9). In contrast, see Zum Ewigen Frieden (1795) (ZeF) for a positive adaptation of the physico-theological account of purposiveness in practical respect, being a "warranty" for perpetual peace (VIII:361). Similar to Düsing, Zammito (1992, p. 342) believes that the decisive concerns in the KU are "the place of man in the order of the world".

Zuckert (2007, p. 370) suggests that from a transcendental standpoint we are noumenal beings with insight into the moral law that we impose on ourselves, regardless of whether we accept a natural determinism on the phenomenal level. In the third *Critique* an empirical level comes into view and evokes the need to make sure that we – as phenomenal beings – obey the moral law and seek to realise it in nature. As I will argue below, the principle of purposiveness cannot secure our moral behaviour. At best, the principle offers incentives to act according to the moral law. ⁶⁹Cf. V:195.

while it is also true that these domains have been built upon the same soil [Boden], namely the sum total of all objects of possible experience. 70 Hence, the concept of freedom does not determine nature, while the concepts of nature do not determine freedom. Therefore these independent legislations could restrict and corrupt each other at any time, which is highly problematic in the face of the normative claims of moral law. We should act autonomously, for the sake of the moral law, as prescribed by practical reason, even though our sensual interests could stand in serious conflict with those good intentions. To bridge this gap and overcome the mutual restriction, the principle of purposiveness implies a supersensible ground of nature to enable the possibility of a match between nature's laws and freedom, aiming at the final end [Endzweck], i. e. the attainment of the highest good as happiness in proportion to virtue (for each individual in the world).⁷¹ That is how the transition from nature to freedom becomes possible.

Already in the first *Critique* a considerable part of the book was dedicated to the ideas of reason, which, by reference to a divine creator, "generate support for the moral ideas and connection with the speculative cognitions". To the elucidation of the antinomy in the second Critique between happiness and morality – an explicit adaptation of the problem in the third Antinomy⁷³ – opens up the possibility that moral behaviour *could* give rise to happiness, even though this consequence of our actions cannot be "cognised and understood" (V:119). Yet the crucial difference is that the purposiveness of nature instantiates itself, rather than being an idea which, per definition, is not realised in nature. For instance, hinting at nature's purposiveness, and in consequence at the supersensible order, the beautiful symbolises the moral good, suggesting in a moderately reliable way its real possibility. ⁷⁴ Elsewhere natural purposes are presented as 'examples' (V:379) of real purposiveness at work in nature. Thus, the supersensible sub-

⁷⁰Cf. "But the territory [Boden] on which their domain [Gebiet] is established and a their legislation exercised is always only the set of objects of all possible experience, insofar as they are taken as nothing more than mere appearances". (V:174)

⁷¹Cf. V:510 f., A810/B838.

⁷²Cf. Düsing 1968, p. 103. Translation mine.

⁷³Cf. V:114.

⁷⁴Cf. V:300, 353.

strate of nature becomes, according to this reading, determinable in nature.⁷⁵ This is how the principle of purposiveness connects supersensible freedom with sensible nature and, at the same time, practical reason with the understanding, thereby encouraging us to act morally.

Something along these lines has already been argued for in the GMS. In that work Kant states that morality conceives the kingdom of ends as a kingdom of nature, but that this might be illusory without a teleology conceiving nature as a kingdom of ends. ⁷⁶ Indeed, this teleology is offered in the KU, stating that nature must be ordered such that the moral law determines nature, allowing the transition from nature to morality. ⁷⁷ Otherwise there is no guarantee that the prescriptions of practical reason can actually be realised. In this way, the KU, the main transcendental principle of which is neither restricted to the realm of nature nor to the realm of freedom, bridges the gap between nature and freedom, saving Kant's philosophical system from an internal conflict.

This position acknowledges that we, as reasonable beings, should act from duty [aus Pflicht], i. e. out of respect for the moral law. Actions not motivated by practical reason are not considered to be moral, regardless of how accurately evolution has shaped our moral senses out of the need for self-preservation. Any other option would open up contingency as it allows the possibility of behaviour in accordance with the moral law [pflichtgemäß] based on immoral motivations. At yet our concept of nature does not in any way force us to be guided by the moral law. Furthermore, if actions are executed from duty, we cannot explain the causal influence of the moral law on these actions. So, although Kant has given us the transcendental conditions of our practical relation

⁷⁵Cf. Düsing 1968, 111 f.

 $^{^{76}{\}rm Cf.}$ IV:436 n. It should be noted that the kingdom of ends does not take happiness into account. In the KrV this is called the 'moral world', A808/B836.

 $^{^{77}{\}rm Cf.~V:}176,~195$ f. n. Recall that morality states the reverse relation, considering the kingdom of ends as nature.

⁷⁸Cf. Allison (2011, pp. 80–5) for an informative discussion of this kind of teleology, which is rejected by Kant. Think for instance of the empiricist theory of moral sentiment.

⁷⁹Cf. e. g. IV:397 f.

⁸⁰Cf. e. g. V:196 n.

to the world, namely the categorical imperative as a synthetic principle a priori of practical reason, it still is inexplicable how an action from duty is realised in nature. There is no guarantee whatsoever that nature is prepared for our moral actions. 81

Even though the *idea* of a 'kingdom of ends' (IV:433–5⁸²) seems to entail the purposiveness of nature, there is no guarantee that this can actually be realised. Kant states explicitly that the moral subject cannot expect a realisation of the kingdom of ends.⁸³ Only angels act from duty while our (moral) actions are always muddled by our interests, needs and desires.⁸⁴ Even if we were highly unfit for moral action because of, say, a tendency towards mental agitation, we still are inclined to act in accordance with the moral law as much as possible.

My Stance towards the Systematic Approach

Let me start by saying that I do not want to disqualify this approach in toto; while the 'realm of ends' in the GMS is strictly practical, the principle of purposiveness of nature allows the transition of this idea into nature by conceiving nature as the final end. Furthermore, the above response to the epistemological reading might indicate that I am sympathetic to extending the principle of purposiveness beyond its discursive determinability; nature's responsiveness also includes the ability to act morally. This is confirmed by the ZeF, where Kant presents a (relative) account of nature's purposiveness in practical respect as a "warranty" for the possibility of perpetual peace (VIII:361).

However, it is hard to see how this can be more than an *additional result* of the third *Critique*.⁸⁵ In my view, the problem of

⁸¹Cf. "nature must consequently also be able to be conceived in such a way that the lawfulness of its form is at least in agreement with the possibility of the ends that are to be realised in it in accordance with the laws of freedom." (V:176)

⁸²Cf. "A rational being must always regard himself as lawgiving in a kingdom of ends possible through freedom of the will, whether as a member or as sovereign." (IV:434).

⁸³Cf. IV:438.

⁸⁴Cf. VIII:366.

⁸⁵In this respect I agree with Stadler (1874, p. 26). Horkheimer (1925, 64 f.) even goes one step further by stating that there is no gap at all and the

how the moral law can be realised in nature is not an intrinsic problem of transcendental philosophy. Following my interpretation of transcendental philosophy, laid out in 1.3, this discipline probes the a priori contribution of our faculties to our relation to nature. The pure a priori conditions of the possibility of both nature and freedom have been completely laid out in the previous Critiques, as Kant explicitly acknowledges in the Introduction in the KU. ⁸⁶

As noted various times, the third *Critique* enquires into a further a priori principle contributing to our relation to empirical nature. Yet if transcendental idealism is a prerequisite for transcendental philosophy, we are not concerned with the objects themselves, but with the conditions under which our mind is related to them. This implies such a warranty from my perspective. It follows that the realisation cannot be considered from a transcendental perspective, occupied with the a priori conditions under which we are able to relate to nature in the first place. Within this context it is crucial to recall the regulative state of the principle of purposiveness.

Furthermore, it seems to me that the gap is fairly overstated. In the third Antinomy the conflict between nature and freedom was solved by reference to two different points of view: an action could be both considered as spontaneous and as determined.⁸⁷ Insofar as the event is considered in relation to the foregoing chain of causal events the event is determined, while from a moral point of view it is spontaneous. Similarly, the GMS states that it is a matter of perspective to what extent we consider ourselves as members of the sensual and of the intelligible world.⁸⁸ In consequence, it is not the case that nature and freedom must be mutually exclusive, as Düsing (1968, p. 107) suggests.⁸⁹ Rather this is a matter of different perspectives.

While this concerns the causal explanation, there is another

result is irrelevant for ethics. I do not agree with this position.

⁸⁶Cf. V:174 f.

⁸⁷Cf. A444/B472–A541/B479, A532/B560–A558/B586. This tension is recalled in the reconciliation of the antinomy of practical reason in the Kritik der praktischen Vernunft (1788) (KpV), cf. V:205 f.

⁸⁸Cf. V:353.

⁸⁹An argument along these lines is also presented in Kuhlenkampff (1978, p. 24).

respect in which this tension might return, namely in regard to the particular constitution of our mind. Reason's moral law and sensible interests conflict with each other. As sensible and intellectual beings we cannot escape this conflict; it might be the case that our practical maxims do not cohere with the moral law. While acting consciously we cannot but apply an a priori synthetic principle, the categorical imperative, in order to line up our maxims with that moral law. We need to apply this principle precisely because we cannot at any single point exclude the influence of sensibility. This tension is meant in the KU where the gap is discussed.

Whatever state nature is in, we are – usually – not excused from acting morally. Thus, that nature might conflict with our moral aims and that we are morally fallible beings belongs from my perspective to the set-up of Kant's critical philosophy, both from a theoretical and a practical perspective. That nature happens to be designed in a way responsive to the highest good, allowing, for instance, the development of a state structure in which the chances of its citizens are distributed equally, surely is an incentive to act morally. 90 Yet if nature lacked hints of that kind, the moral law would not demand less of us nor would our struggle with our sensible desires and interests disappear. Horkheimer (1925, p. 65) notes that (deontological, TM) ethics does not depend on the realisation of ideas. The basic fact that we do not always act the way we ought to, i. e. motivated by the moral law, demands moral judgements whose form and justification Kant delivered in his practical work. A warranty would not change that situation.

 $^{^{90}}$ That such a design presupposes a supersensible designer is stated in the KpV, cf. V:125. This is also discussed in the second section of the Canon of Pure Reason in the KrV, prompted by the question what we may hope for. It also plays an important role in the First Supplement in ZeF, where in regard to nature's (relative) purposiveness Kant famously writes that "[t]he problem of establishing a state, no matter how hard it may sound, is soluble even for a nation of devils (if only they have understanding)" (VIII:366). Guyer (2005, pp. 314–7) also claims that these passages resemble this argument in the KU. Rightly, I believe, Kuhlenkampff (1978, pp. 173–176) draws attention to the speculative character of the argument.

On the supposed Gap

Taking that into account, it is firstly not the case that there is a relevant gap. The categorical imperative states how the moral law can gain influence over our maxims inclined by 'nature', taken here as the sum of dispositions, needs, habits, interests, etc. This already entails the possibility of an asymmetric influence between both spheres; therefore I do not see a mediating role for the RPJ here. Surely, one might argue that the a priori possibility of moral action is independent of actual consequences. Therefore, rewards like beautiful objects as symbols of the good are necessary to motivate the action.

Yet I am not convinced that these hints of nature are so very rewarding insofar as these are merely signs of nature's responsiveness to our mind. Moreover, in this context Kant notes that the interest of practical reason in nature's purposiveness is not a common trait, but only accessible for those with a disposition towards the good.⁹¹ Additionally, his related comment that a certain interest in (organic) nature often indicates a good heart is not only quite vague, but can be falsified quite easily due to its contingent character. There are, for instance, elements of Romanticism, like the naive adoration of nature and peasant life, in the Blut-und-Boden-ideology of Nazism, motivating a largescale genocide and a world war. 92 For these reasons, I am not sure how convincing Kant's remark is. Rather, I agree with the suggestion by Kuhlenkampff (1978, pp. 24–6) that this search for motivation is a practical problem and its solution consists in the introduction of practical terminology ('purpose', 'final end') to relate to nature. This indicates, he argues, "the transition [Übergang] from the manner of thinking" (V:176, emphasis mine) by the power of judgement rather than a transition from freedom to nature.93

⁹¹Cf. V:301.

⁹²Cf. Brüggemeier (2005).

⁹³At this stage I merely referred to the problem of practical motivation by the idea of a final end. I surely do not want to reduce the necessary principle of purposiveness to a mere way of speaking about nature. For that same reason I believe that formulating the principle of purposiveness in hypothetical terms, the notorious "as if", falsely suggests that we are dealing with a language game rather than a transcendental problem.

Furthermore, it is crucial to recall that this principle is regulative and can thus in no possible way guarantee the transition from nature to the moral law. To state that beauty and natural purposes make the supersensible symbolically determinable within the realm of nature, as these interpreters do, outruns the regulative and subjective status of the principle of purposiveness. Challenging such a stance, one must recall the critique of dogmatic teleological theories in §75 and the subsequent emphasis on the peculiar character of our cognitive faculty. Moreover, beauty merely hints analogically at the possibility of morality; regardless of how valuable this is, it cannot be the primary result of transcendental philosophy searching for the necessary (a priori) contribution of our mind to our relation to objects.

In sum, my stance on this matter is that this correspondence between practical and theoretical interests in the very same nature was no particular innovation in the third Critique, but rather a happy by-product of purposiveness. Therefore, it is only stressed at length at the end of the second introduction and in the Appendix to the KtU; elsewhere it is just mentioned without further explanation. Yet I would like to reiterate that this is not meant as a full disqualification of the supposed reading. I believe that the practical aspect must be taken into account and that one formulation of the principle of purposiveness must say that nature is organised such that we are able to realise our practical ends, being "advantageous [vorteilhaft] for practical reason" (V:169). Yet presenting it as the main motivation behind the third Critique will block much of the further argument and put too much pressure on the work.

1.5 Conclusion

Even though this chapter did have the character of an overview, it was mainly driven by the problem of how the third *Critique* is best approached. The last couple of years much have seen a positive change in the reception of the third *Critique*; nevertheless

⁹⁴Düsing (1968, p. 103) and Bartuschat (1972, p. 12) fairly acknowledge that their reading is not obvious, yet this can be said of my own reading and many other readings of the KU as well.

59

the piecemeal reading is still dominant. Specialisation can be advantageous when it comes to a dense text like the one under consideration, yet it comes with a price too. This price is the loss of the holistic perspective that allows the transcendental dimension of the work to be seen. I believe the transcendental approach to have much more power to clarify the general problem, since many of the local problems subsequently will appear in a different light.

We have observed how an imaginary reader easily loses orientation in a work where a clear declaration of the problem is absent at first sight. But adopting the principle of charity, she will be able to see some rather obvious hints leading towards a transcendental problem. This means, generally speaking, that the work presents and justifies the necessary contribution by an a priori principle guiding our mind's activity, in this case the principle of purposiveness guiding the RPJ. Lacking this a priori principle, the unity of experience is threatened since reflection would not be directed towards a certain kind of representation. I have offered textual support for this transcendental approach, discussed the relation to the other critical works and the work's internal coherence. We additionally saw that judgements of taste reveal this principle whereas teleological judgements, facing the threat of theology, demand a justification of the status of the principle (see chapter 2).

Finally, I presented two further alternative approaches sharing the urge to offer a holistic reading of the work. According to the epistemological approach the book discusses a faculty that contributes to our cognition of nature. But, as I have argued, such a position misconceives the account of reflective judgement which, unlike determining judgement, does not contribute to cognition, as judgements of taste show most forcefully. The systematic approach, stating that the third *Critique* bridges the gap between nature and freedom, is problematic according to my account, since this is not a genuine problem in Kant's practical philosophy, but a happy collateral result. In contrast, I believe that the third *Critique* is neither strictly practical nor theoretical, because the principle at work does not constitute its own legislative domain.

Chapter 2

Structure of the Third Critique

2.1 Orientation

Having framed my general approach in the former chapter, I must elaborate how this affects the reading of the Aesthetics and the Teleology. A treatment that presents itself as a holistic alternative to piecemeal readings must acknowledge the two main parts of the KU, otherwise the ground for my position becomes rather flimsy. Foregrounding the transcendental principle of purposiveness might easily give the impression that judgements about beauty and natural purposes are rather contingent areas of application of the RPJ. This is not the case on my account; therefore I would like to consider with great care the moment of reflection and the application of this a priori principle regarding these topics.

Yet I must refrain from commenting on the whole book, since I am primarily interested in the transcendental aspect of the work, i. e. the necessary contribution of our mind to objects of experience. Therefore, I will only comment on those elements in their direct relevance for the leading problem.

I do not believe that the critical Kant was interested in a thorough discussion of beauty or organisms, especially not in the transcendental context they are presented in. Yet it turned out in the course of his inquiry that these topics are unavoidable in order to discover the unique contribution of our RPJ. Surely the discovery of a regularity in nature is accompanied by pleasure, but only in the case of judgements of taste does the dependence on the transcendental principle of purposiveness become apparent: confronted with beauty it truly seems like nature has been organised in accordance with our mind. Similarly, the transcendental philosopher will ask to what extent the underlying principle applies to the description of natural purposes. Hence, both beautiful objects and natural purposes instantiate purposiveness in nature, where nature is taken as the sum total of objects of experience. Thus, beautiful objects as well as natural purposes are therefore indications that nature in general is organised by an unknown transcendent mind for the sensual-discursive beings we are.

Following the structure of the book, I will begin this chapter with a discussion of the Aesthetics and end with a discussion of the Teleology. In order to parse the peculiarity of judgements of taste, we will first explore the logical features of these judgements in 2.2.1, since they are fundamentally different from cognitive and moral judgements. Secondly, in 2.2.2, we will inquire into how and where the principle of purposiveness comes into the picture. Thirdly, I will present the Deduction of judgements of taste in 2.2.3, justifying the universal claim of a judgement of taste by reference to the common constitution of the human mind. Finally, the antinomy between two opposite positions on judgements of taste is solved by recourse to the supersensible substrate underlying nature, in preparation for the second half of this chapter.

In considering teleological judgements I will proceed slightly differently, since it is necessary to elaborate on the account of natural purpose in 2.3.1 and stress the reflective status of judgements about them in 2.3.2. Rather than the (absent) Deduction of teleological judgements, I will focus on the reconciliation of the Antinomy in 2.3.3. There, I believe, the transcendental aspect becomes apparent, since it is necessary to trace the status of judgements about these objects back to the particular structure

of our cognitive faculty.

2.2 Aesthetics

2.2.1 Logical Features of Judgements of Taste

Over the course of the first half of this chapter I will try to highlight the transcendental dimension of the KaU. Previously, I warned about "some not entirely avoidable obscurity" (V:170) in regard to Kant's discussions of taste, while emphasising the intention to address the issue "only from a transcendental point of view" (V:170). Further support for this reading can be found in the following citation:

"Since the investigation of the faculty of taste, as the aesthetic power of judgement, is here undertaken not for the formation and culture of taste (for this will go its way in the future, as in the past, even without any such researches), but only from a transcendental point of view" (V:169, emphasis mine).

Kant was eager to distinguish his own project from aesthetic theories available at his time. 95 No wonder, since discussing the features of beautiful objects is considered by Kant to be a 'fruitless undertaking' (V:231) precisely because the aesthetic judgement is based on a feeling rather than concepts or rules. Instead of asking what characteristics a beautiful object must have in order to be aesthetically pleasing (order, proportion, harmony, etc.), the focus is directed towards the subjective conditions 'in our selves' (V:350) under which we judge it to be that way for us. Hence, Kant breaks with a long philosophical tradition, from Plato through the scholastics to Leibniz, of ontologically linking beauty to objects. 96

⁹⁵Think for instance of Lessing's rules of taste. See Guyer (2016) for an overview of the main rationalist theories by Wolff, Baumgarten and Meyer. Wieland (2001, pp. 30–6) convincingly argues why aesthetics as a scientific discipline is not possible within Kant's critical framework.

⁹⁶Eco (1993) notes in chapter 3 that *pulchrum*, beauty, is even part of the

It is not particularly hard to discover the transcendental purport in the citation: the object is not considered in itself, but only in regard to the contribution of our cognitive faculty (cf. 1.3). The question is how it is possible that we – as the sensible and discursive beings we are 97 –, unlike an intuitive understanding and unlike the animal's mind 98 , can consider an object to be beautiful? How is it possible that "x is beautiful" is a meaningful statement for us? To answer these questions, we must start an inquiry into the logical form of judgements of taste.

Although we can discuss Shakespeare's Hamlet for hours and interpret every single sentence, at the end of the day we will not be able to persuade the other of its beauty, as we can persuade the other of, say, the law of gravity based on our insight into the "constitution [Beschaffenheit] and internal or external possibility of the object, through this or that cause" (V:22199). Additionally, Arendt (1985, p. 25) helpfully points out that it is impossible to make deductive or inductive inferences about the beauty of objects. Hence neither the facts nor the arguments are decisive for judgements of taste, but the feeling the object causes in the recipients. Feelings of other subjects as much as of ourselves are known to be highly individual and often hard to comprehend, vet we still make universal claims about things we happen to think of as beautiful. Not because we get a decent provision for marketing theatre tickets or because we want to improve our status within a peer group, but uninterestedly, simply because we want to make our involuntarily felt approval of that what suddenly strikes us as beautiful vocal. A judgement of taste is an autonomous claim before the community of the world that everyone should agree with, regardless of their actual (i. e. empirical) consent. The only justification we have for such a statement is a feeling of pleasure evoked by our demand for general agreement.

Although one might expect Kant to dispel these kind of judgements from the realm of the meaningful, he in fact spends quite a few pages justifying them. In the Analytic of the Beautiful

transcendentals according to Grosseteste, Bonaventura, Albertus Magnus and Thomas Aquinas.

 $^{^{97}}$ Cf. V:219.

⁹⁸Cf. V:271. Both alternatives are discussed in 1.3. I will discuss more alternative accounts in 4.5.

⁹⁹Cf. V:189, 280, 370.

four so-called moments of these judgements are distinguished. Following the structure of the table of judgements these moments are [i] the lack of interest into the existence of the object (quality) 100 , [ii] the absence of a determining concept (quantity), [iii] the instantiation of purposiveness without a purpose (relation) and [iv] the necessary relation to satisfaction (modality). All but the third moment are comprehensible in light of the above description of a judgement of taste.

Tension between Universal and Subjective Status

Yet before I arrive at the third moment – purposiveness – on page 69 of this study, I would like to elaborate the tension that has been suggested between the universal and the subjective claims these type of judgements make. This tension sets the stage for the justification of aesthetic judgements and helps to appreciate the peculiarity of this type of judgement. Although we demand universal agreement, we cannot ascribe beauty objectively to that object. 'Beauty' is not a feature of an object or of kinds of objects – the predicate 'beautiful' is not discriminatory nor demonstrative. Thus, judgements of taste are peculiar, because they demand universal agreement without the involvement of determining concepts.

In order to understand the *universal claim* of judgements of taste, we will bring into play the opposition with judgements about the merely agreeable [das Angenehme].¹⁰¹ Unlike the merely agreeable, depending on one's private sensible disposition and biography¹⁰², the experience of beauty is such that we consider it to be *universally pleasurable*. Everyone should agree with our judgement that this rose is remarkably beautiful while we cannot expect others to agree on, say, the delicious taste of dried figs. Hence, to count as a judgement of taste, it is crucial that the

¹⁰⁰Cf. Thomas Aquinas, Summa Theologiae, I–II, 27, 1 ad 3: "Ad rationem pulchri pertinet quod in ejus aspectu seu cognitione quietur appetitus". Cited in Eco (1993, p. 126).

¹⁰¹An early indication of this distinction can be found in Collin's notes of Kant's lecture on anthropology in the winter of 1772/3: "Gefühl ist also sehr leicht zu haben, denn dazu gehört nur Sinn. Geschmak aber ist rahr, denn dazu gehört Urtheilskraft." (XXV/2:178)

¹⁰²For instance, "Wine is pleasant" (XX:224).

judgement is freed from subjective "charm and emotion", Reiz und $R\ddot{u}hrung$ (V:294¹⁰³), based on personal preference.

The merely agreeable is *immediate*. The particular constitution of the object triggers, unexpectedly, a harmonious play of the understanding and the power of imagination without the involvement of concepts. It is important to notice though that the mental state should not be confused with the feeling of pleasure. It is not until we *reflect* introspectively on that subjective mental state [Gemütszustand] (V:217) that we become aware of the purposive form of the object. ¹⁰⁴ Supposing that every human being has these same cognitive faculties, every human being should agree to a judgement of taste. ¹⁰⁵ Why we are justified in making this presupposition will be explained in 2.2.3.

So the proposition "x is beautiful" is not merely random. Expressing a judgement of taste, we demand the agreement of all human beings, regardless of whether every single one of them does in fact agree. In this respect aesthetic and moral judgements share their normative status. ¹⁰⁶ On page V:353 Kant even speaks of a duty, a *Pflicht*, to agree with the statement. It is important for Kant's conception that each subject can judge autonomously, as the judgement exclusively depends on an a priori principle, without having to take into account other opinions. ¹⁰⁷

Here the echo of the Enlightenment slogan, sapere aude or think for one's self [Selbstdenken], one of the maxims of the sensus communis (cf. §40), becomes quite loud. In that respect the truth of such a self-imposed judgement is based on nothing but that principle, just as a moral judgement depends on nothing but the (self-imposed) moral law – regardless of the public opinion. Kant highlights this aspect when he states that aesthetic judgements are a priori. These kind of judgements are a priori since the judgement depends on the a priori demand that everyone should agree, regardless of their actual – empirical, so to speak –

 $^{^{103}{\}rm Cf.}~{\rm V}{:}224~{\rm f.}$

¹⁰⁴Cf. V:190. For the "purposive form of an object", see V:221, 240.

¹⁰⁵Cf. V:239.

¹⁰⁶Cf. V:213.

¹⁰⁷Cf. V:281 f., XX:225, 239.

¹⁰⁸For the link to enlightment, cf. note 147 on page 77.

¹⁰⁹Cf. V:237, 288 f.

consent. 110 This additionally explains why such a statement is necessary. 111

This opposition between judgements of taste and the agreeable also allows us to highlight the lack of interest into the existence of the object. Usually, we stand in an instrumental relation towards objects in our environment. Especially when we are confronted with the agreeable we feel great interest in the existence of the object in order to satisfy our appetite. Whether someone likes that Madeira-casked 18y single malt at time t depends on the contingent constitution of her preferences at time t. In contrast, a beautiful object does not trigger our interest in its existence, since the beautiful does not depend on our contingent individual interests. As we will explore later, it depends on the peculiar constitution of our human mind.

Subjectivity of a Judgement of Taste

To elaborate on the *subjectivity* of the judgement of taste we might compare a judgement of taste with a cognitive determining judgement ("s is p"). The former is fundamentally different from the latter, since a judgement of taste does not subsume an object under a predicate. ¹¹⁴ Or, as Kant prefers to express himself in a slightly misleading way, there are no concepts involved in an aesthetic judgement. ¹¹⁵ Obviously, there is a determined concept involved in a judgement like Kant's recurring example "the rose is beautiful" (V:215). ¹¹⁶ Rightly, I believe, Ameriks (2003, p. 314) stresses against Ginsborg (1997) that the non-conceptual character of these judgements just means that there is "no *definite* concept" in play. The point of Kant's remark is thus that the adjective 'beautiful' is not a discriminatory determination of the object. While we can subsume a representation under the concept 'house', because it has characteristic features like windows, a

 $^{^{110}{\}rm Cf.}~{\rm V}{:}288~{\rm f.}$

¹¹¹Recall the fourth moment on page 64.

¹¹²Cf. V:211. This is the first moment (see page 64).

¹¹³Cf. V:207, 210.

¹¹⁴Cf. XX:222, 224, 234, 247. Please note that this concerns the second moment (see page 64).

¹¹⁵V:281, cf. XX:225, 238, 243.

¹¹⁶Cf. V:281.

door and a rooftop, we cannot find such features for the concept 'beautiful'. Equally, we cannot point towards an object to demonstrate what 'beauty' is, but we can point out what a 'door' or a 'quadrangle' is by executing the same action. 118

The only reason to ascribe beauty to an object is the feeling it evokes in us while we autonomously express our appraisal. It is just an expression of the subjective relation between the representation and the feeling of pleasure, independent of rules or concepts. It follows from the subjective character of a judgement of taste that someone else might disagree, while this is – ideally speaking – not the case for the truth of a cognitive judgement. Hence an aesthetic judgement cannot have the objective status a cognitive judgement claims to have.

Furthermore, being beautiful is not a feature that characterises an object, like 'extension' is a feature that characterises all instances of matter, since aesthetic judgements are about individual instances rather than species. Judgements of taste are demonstratives referring to singular objects; the lack of a concept does not allow another logical quantity. 120 We are entitled to make these judgements solely based on the feeling of pleasure 121 , therefore we cannot leave out the sensual impression of the object and we cannot generate statements concerning the beauty of species. For instance "all tulips are beautiful" is a logical judgement and not a judgement of taste, according to Kant. 122

The impossibility of treating beauty as a feature – in the particular technical Kantian sense we will discuss in 4.3 – also helps to understand why an aesthetic judgement is synthetic. Namely, the object is connected with a predicate ('beautiful') not entailed in the concept of that object. ¹²³ It is, for instance, not a defining

¹¹⁷For such an account of determining, cf. V:339. See also 4.2.

¹¹⁸Determinability is defined as demonstrability in V:342. I will ignore the rule-following paradox for reasons of brevity.

 $^{^{119}\}mathrm{Of}$ course, as soon as one takes into account the modalities of the various kinds of beliefs in the Dialectic's canon of the KrV (cf. Chignell 2007), the situation changes. Yet even in those cases, cognitive judgements claim to be true.

¹²⁰Cf. V:289.

¹²¹Cf. V:231.

¹²²Cf. V:285.

¹²³Cf. V:288.

character of metal to be beautiful, therefore a judgement like "that metal object is beautiful" is a synthetic judgement, even if it *seems* that 'beautiful' is the only appropriate term to be used in that context. 124

Wrapping up, the logical 'peculiarity' of judgements of taste, as Kant calls it, implies that they are (i) a priori valid for all subjects due to the lack of interest in the object, (ii) without deploying (determining) concepts. Such a judgement is normative, based on the feeling of pleasure, regardless of the agreement of other subjects. As Kant makes clear, this is only peculiar for the transcendental philosopher, who is inquiring the source [Ursprung, V:213] of these kinds of judgements, and not, for instance, for the psychologist, like Burke, who is interested in the special character of that mental state. ¹²⁵ I would like to continue along this transcendental line of thought and focus in the next section on the particular source of these judgements.

2.2.2 The RPJ and Purposiveness in KaU

In discussing the logical properties of judgements of taste we have not encountered the faculty, the RPJ, and its accompanying principle, although the contribution by this faculty was announced previously as a prevailing aspect of the transcendental approach. I will sketch this contribution on the following pages.

At first sight the RPJ seems not involved in the feeling of pleasure, because the animated and "free play of the faculties of cognition" (V:217) takes place between the understanding and the power of imagination. Usually, the power of imagination is governed by the concepts of the understanding, producing rules to construct or synthesise images according to those concepts. Kant describes the power of imagination here as the "faculty of intuitions a priori" (V:190), resembling his definition of the productive power of imagination in the KrV, namely the a priori determination of

 $[\]overline{^{124}\text{Cf.}}$ "just as if it were to be regarded as a property of the object that is determined in it in accordance with concepts" (V:218).

sensibility¹²⁶. This power is set free when confronted with the form of an object whose manifold is composed strikingly similar to the way the imagination would produce that manifold if it were not governed by concepts.¹²⁷ Hence, this resemblance between the form of the object and the free production of the power of imagination sets the latter in a particular state in which it delivers "unsought extensive undeveloped material for the understanding, beyond that concord [Einstimmung] with the concept" (V:317), animating the understanding, and vice versa, without coming to an end.¹²⁸

To get a better grip of this *free play*, it is worth contemplating the account of *Spiel*, play. *Spiel* offers a complete order outside of the profane and purposive order which is spontaneous, sudden and free. A *Spiel* is strictly speaking good for nothing and yet its purpose lies within itself. Within the limits of the *Spiel*, everything is focussed on its end according to certain rules. It is not serious ('it's just a game') and yet it is dead serious for all participants and contemplators. "The more we aim to distinguish the form of play from other seemingly related forms of life, the more its farreaching independence comes to light." This, I think, applies to the free play Kant aims to describe; it is an order that transcends the profane or moral order and follows own rules.

Central Moment of Reflection

Yet this mental state that we call free play of the faculties of cognition would not give rise to a judgement of taste without the moment of reflection. This is not the case because the free play is an antecedent state of the pleasure in the beautiful, as Guyer (2009, p. 207) believes 130 , but because reflection is a central mo-

 $^{^{126}}$ Cf. B152.

¹²⁷Cf. V:241.

¹²⁸The scholastic aesthetic account of *proportionality* in Bonaventura and Thomas Aquinas resembles this description; there is an intensified feeling of pleasure *if* there is a certain harmonious proportionality in the structure of subject and object. This is a moment of ecstasy. (cf. Eco 1993, 118 f.).

¹²⁹Huizinga (1974, p. 6), translation mine.

¹³⁰According to Guyer (2009, p. 207) "the pleasure in the beautiful is the conscious effect of the *subconscious* free play of the faculties" (emphasis mine). Since the free play animates the mind by bringing it into a state

ment of the free play. In fact, Kant states that the ground of the feeling of pleasure solely depends on the moment of reflection. 131 Even though Kant sometimes degrades reflection within the context of the Aesthetics to "sheer [bloße] reflexion" (V:190 132), which is characterised by the absence of the aim to arrive at a concept, it is still guided by the principle of purposiveness, which is its main characteristic of reflection on my reading (cf. 7.4). The following citation turns out to be very helpful:

"by the aesthetic power of judgement as a special faculty necessarily nothing else can be meant than the reflecting power of judgement, and the feeling of pleasure (which is identical with the representation of subjective purposiveness) must not be regarded as the sensation in an empirical representation of the object, nor as its concept, but must be regarded as dependent only on reflection and its form (the special action of the power of judgement), by means of which it strives to rise from intuitions to concepts in general, and as connected with it in accordance with a principle a priori." (XX:248 f.)

In the quoted passage from the EEKU, Kant distinguishes three possible ways to understand the feeling of pleasure: sensible, conceptual and reflective. We have already seen above, in 2.2.1, that the feeling of pleasure is not purely sensible, as in a judgement about the agreeable, nor conceptual, like in an epistemic judgement. Thus, following the citation, the feeling of pleasure must be understood as "reflection and its form (the special action of the power of judgement)" (XX:249), which is neither sensible nor conceptual, but rather aims to connect intuitions with concepts. This is very similar to the reflection in an epistemic mode, described in the context of the KaU as the "reflection on an object that leads to some sort of concept [die zu einem Begriff führt]" (V:207), indicating that we are dealing with the same account of reflection. While searching for concepts, this faculty is guided

of high alert and awareness, 'subconscious' is not a happy way of characterising the free play. Moreover, it evokes a two-stage-reading which I will discuss and counter below.

¹³¹Cf. "to discover beauty [of a thing, T. M.] in it requires nothing but mere reflection (without any concept) on a given representation." (XX:229, cf. V:190 f.)

¹³²Cf. V: 291 f., 295, XX:220, 244, 251.

 $^{^{133}}$ Moreover, the comparison between aesthetic experience and empirical

by the principle of purposiveness in order to find what it projects into nature, namely an order we can parse discursively.

Aware of the free play, the RPJ reflects on that particular mental state, guided by its a priori principle of purposiveness. ¹³⁴ Lacking a determining concept, because the power of imagination has been set free, the underlying principle of purposiveness guides the judgement, therefore the judgement of taste expresses nothing but that very principle. 135 In the above citation and elsewhere Kant even identifies the feeling of pleasure with the representation of the principle of purposiveness. 136 Although no determining concept is governing, we can still expect on behalf of this principle that nature accords with the lawfulness of our discursive faculty. Or, in other words, this principle states that the representations of the power of imagination accord with the understanding's conceptual order in regard to their lawfulness. 137 Indeed, the form of the object resembles the freely generated form of the object by the power of imagination, while the latter is nevertheless in line with the "lawfulness of the understanding [Verstandesgesetzmäßigkeit]" (V:241).

While this principle is mediately active in the search for empirical concepts, it is only in this pleasurable state of reflection that we are exclusively focused on the appropriateness of the representation in regard to the harmonious activity of our cognitive

concept acquisition is explicitly made on page V:292. Cf. "For that apprehension of forms in the imagination can never take place without the reflecting power of judgement, even if unintentionally, at least comparing them to its faculty for relating intuitions to concepts." (V:190, cf. V:279, Henrich (1994, 49 f.))

¹³⁴Cf. V:220. Zuckert (2007, p. 318) also stresses the role of the principle of purposiveness for the judgement of taste.

 $^{^{135}}$ Cf. the title of §11: "The judgement of taste has nothing but the form of the purposiveness of an object (or of the way of representing it) as its ground" (V:221).

¹³⁶Cf. e. g. V:190.

¹³⁷Cf. "taste, as a subjective power of judgement, contains a principle of subsumption, not of intuitions under concepts, but of the faculty of intuitions or presentations (i. e., of the imagination) under the faculty of concepts (i. e., the understanding), insofar as the former in its freedom is in harmony with the latter in ist lawfulness." (V:287) Ginsborg (1997, p. 44) takes this as a change of the level of abstraction, but I would argue that the interplay is still related to the stimulating form of the singular object we are aware of.

faculties. This "inner purposive agreement [Stimmung] of our cognitive faculties" (V:359) is the sole moment of occupation with that purposiveness without a purpose, as emphasised in the following citation: 138

"Now since the concepts in a judgement constitute its content (that which pertains to the cognition of the object), but the judgement of taste is not determinable by means of concepts, it is grounded *only* on the subjective formal condition of a judgement in general. The subjective condition of all judgements is the faculty for judging itself, or the power of judgement." (V:287, emphasis mine)

To begin with, Kant recalls an important lesson from his logical analysis of aesthetic judgements, presented above. Unlike cognitive judgements, judgements of taste do not determine the object. Thus, since these kind of judgements lack a determining concept, the fundamental principle of the faculty involved comes into play. This faculty is the (reflective) power of judgement, the underlying principle is the principle of purposiveness. Following the above quote, the judgement of taste basically and solely expresses the purposiveness of nature for us. In terms of transcendental philosophy, the adjective 'beautiful' is equivalent to the way that nature is responsive to the peculiar constitution of our cognitive faculty. ¹³⁹ In phenomenological terms, judgements of taste are an expression of the pleasure we experience while we are suddenly confronted with a certain object.

Yet it is important to add that we not only *expect* nature's responsiveness, like we do when we are searching for a concept in the cognitive mode, but we actually see the purposiveness in front of us. It is a presentation of subjective purposiveness. All aspects of that beautiful object are excessively beautiful without a hint of its purpose, without a concept to subsume it under. ¹⁴⁰

¹³⁸Kant offers more explicit descriptions of this agreement, like self-sustaining animation and a harmonious free play. Guyer (2006) distinguishes between a pre-cognitive, multi-cognitive and meta-cognitive reading of the harmonious state of the faculties. I will stay neutral on this topic, since it is not directly relevant for the point I want to make here.

¹³⁹Cf. V:191. I have adopted the recurring description of the principle of purposiveness as "responsiveness to the peculiarity of our mind" from Haag (2019).

¹⁴⁰Cf. V:236 n., 243.

Nature must be infinitely purposive [$zweckgem\ddot{a}\beta$], otherwise the interest in the object is soon lost. The moment you discover the purpose behind it the magic dissolves, like the nightingale's singing loses its reviving beauty as soon as you discover it is a man's imitation. ¹⁴¹ Observing Caspar David Friedrich's Monk by the Sea, we might look at it from great distance, from the side or analyse the small details with microscopic precision, with or without the most capable of all art historians in town, and still we will not be able to reveal its spell. Here the purposiveness, the presupposition of a design that we cannot grasp by a designer we cannot know, is at work in front of our eyes.

Critique of a Two-order Reading

Analysing the various aspects of these kind of judgements, we might easily get the impression that we are dealing with an asymmetrical consecutive sequence of states, opting for a pleasure-cum-reflection-story. According to such a story, we firstly and purely subjectively state that the object causes an agreeable free play and secondly, after a reflection on that state, we are justified in demanding the same reaction by all human beings. For instance, Guyer (1997, p. 99) states that

"Kant describes the feeling of pleasure as both the product of judgement and the ground of determination for judgement [...] [T]his circularity can be avoided only if we take Kant to be referring to two distinguishable acts of the faculty of judgement when he describes this faculty as both producing a feeling of pleasure and taking such a feeling as the ground of determination for an aesthetic judgement on the beauty of an object."

This is a remarkable statement, since §9, which is Guyer's topic of discussion, states the opposite, namely that the judgement precedes the feeling of pleasure. Similarly, Longuenesse (2003, 153 f.) distinguishes between a first-order and second-order pleasure. Although Ginsborg (2015, p. 144) tries to avoid such a position, she still refers to two sequential states.

¹⁴¹This example is given on page V:302, cf. V:299.

75

Indeed, Kant talks this way when he states in the very same §9 that the sheer subjective aesthetic judgement 'precedes' the "pleasure in [Lust an] the harmony of the faculties of cognition" (V:218). Yet we must also stress that in the same sentence he depicts the first as the 'ground' [Grund] of the latter, indicating that it is a logical rather than a psychological dependence. Elsewhere, in §12, Kant distances himself from a causal relation between representation and the feeling of pleasure. Rather, he speaks of an inner causality reciprocally triggering and intensifying the feeling of pleasure and the reflection. This confirms the lack of an antecedent state. 143

Indeed, Kant's dictum "that is beautiful which pleases in the mere judging" (V:306) confirms that the aesthetic pleasure is the act of judging. In this context it is helpful to discuss aesthetic judgement in phenomenological terms. From a subject's perspective these judgements are, for instance, the immediate sounded or unsounded 'wow' facing Rembrandt's portrayal of Moses smashing the tablets of the Ten Commandments, the sudden shivering while the Prelude to Bach's Cello Suite No. 1 sets in or the condensed tension felt while watching L'Enfant by Luc and Jean-Pierre Dardenne.

This is not a tentative 'wow' ready to be checked and approved by the RPJ in order to become a stable position. It is rather the unexpected, yet *immediate conviction*, without any inference or determination, that everyone, regardless of their background, should respond in a similar way. The immediate connection of the representation with the principle of purposiveness follows from the principle's a priori character: if this principle precedes all empirical cognition it cannot be anything but immediate. ¹⁴⁴ An account of a causal and consecutive sequence of stages would open the door for an inferential account of judgements of taste, which should be avoided at all costs.

¹⁴²Cf. V:222, XX:224.

¹⁴³The following citation from §11 delivers further textual support: "Now this relation in the determination of an object as a beautiful one is combined with the feeling of pleasure that is at the same time declared to be valid for everyone through the judgement of taste" (V:221, emphasis mine).
¹⁴⁴Cf. V:189.

2.2.3 Deduction of Judgements of Taste

Having stressed the central role of reflection and purposiveness in the previous section, we still face the open question of why a feeling, a mere inner state, is sufficient to make these strong necessary claims? How is it possible that we can use this feeling as a criterion for other subjects as well?¹⁴⁵ Answering that question is the aim of the *Deduction* of these synthetic judgements a priori. Following a known procedure, Kant aims to justify the logical peculiarity of judgements of taste as discussed in 2.2.1, namely the necessary and universal validity without the application of determining concepts. Why are we justified in making a general judgement based on a feeling rather than concepts, rules or external approval?¹⁴⁶ Or, in Kant's own words: "how are judgements of taste possible?" (V:288) Since this concerns a contribution by our mind, and more particularly by the RPJ, I think we can safely describe it as a transcendental undertaking, supporting the main claim of this study.

The Deduction begins by repeating what was already developed in the context of the third moment, discussed in the previous subsection, namely that in judging the pleasure we feel, our judgement of taste is an expression of the purposive form of nature. In other words, we note that the object agrees, accidentally, with our cognitive faculty, while we do not have an interest in the object. Such a judgement is described as pure insofar as it is only concerned with the form and not with the matter of the object. Form refers here to the purposive form of the object, i. e. the appropriate order in respect to the particular constitution of our mind that initiates the free harmonious play of the faculties.

Having restricted the scope to the form of the object, we can then turn to the (transcendental) contribution of our mind, namely the "subjective conditions of the use of the power of judgement in general" (V:290, emphasis mine). This insight reveals a further presupposition, namely that this subjective condition is not merely

¹⁴⁵Cf. V:281.

¹⁴⁶This is also described as a "legitimation of its presumption [Anmaβung]" (V:279) or a "guarantee [Gewährleistung] of the legitimacy of a kind of judgement" (V:280).

individual, but shared by all human beings. The consideration of others' opinions in the act of reflection is sometimes described as *sensus communis* or *Gemeinsinn* (V:293).¹⁴⁷ This represents the third step: every member of the class of human beings shares this peculiar mind's constellation.

In summary, since our judgement solely concerns the purposive form of the object (step 1), based on the subjective conditions of the RPJ (step 2) that are shared by all human beings (step 3), it follows – by way of conclusion – that the judgement is not just an expression of personal preference, but should be true for each human being. If all human beings are subjected to the same conditions of the RPJ, Kant is allowed to infer that they must all respond with the same 'inner purposive agreement of our faculties' to objects of our judgements of taste. That we, as the human beings we are, make these kinds of judgements, is an expression of the peculiar constitution of our cognitive faculties contributing to our representation of the objects. The justification is thus based on the conditions of the possibility of cognition by the kind of beings that we are. Supposing the same cognitive faculties

¹⁴⁸Here is a less complicated summary of the result of the Deduction: "It asserts only that we are justified in presupposing universally in every human being the same subjective conditions of the power of judgement that we find in ourselves" (V:290).

¹⁴⁷For Zuckert (2007, p. 380) this is just a logical consequence of the Deduction of taste. On my reading Gemeinsinn is a necessary a priori condition to making judgements of taste, as stated explicitly in §20: "only under the presupposition that there is a common sense (by which, however, we do not mean any external sense but rather the effect of the free play of our cognitive powers), only under the presupposition of such a common sense, I say, can the judgement of taste be made." (V:238). This account plays an extraordinary role in the idiosyncratic reading of the KU by Arendt (1985, pp. 93–7). Treating the work as a contribution to political philosophy, she stresses this aspect, since this is the moment where the public communicability enters the scene and calls upon our judgements to accord to the three known maxims of the sensus communis: autonomous, emphatic and coherent thinking (cf. V:294). Kant speaks in this context of the "undetermined norm of the common sense" (V:239). Although Arendt's reading is not intended to be an apt representation of the full work, it is valuable, in my view, since it connects it with the comprehensive (Kantian) project of enlightenment by stressing the autonomy of the judging subject. Moreover, it emphasises the normative correction by common sense in opposition to the feeling-based Sturm und Drang-movement, which Kant opposed most vocally in his reviews of Herder's Ideen zu einer Philosophie der Geschichte der Menschheit.

for all human beings, the aesthetic judgement about an object is valid for everyone "who is determined to judge by means of understanding and sense in combination (for every human being)." $(V:219)^{149}$

2.2.4 Reconciliation of the Antinomy of Taste

While the Deduction made clear how crucial the presupposition of a common constitution of the mind is in justifying the validity of a judgement of taste, it did not answer the question on what ground we are allowed to make this presupposition. I believe that the reconciliation of the Antinomy points us towards the answer. The aim of the various antinomies throughout Kant's work is to overcome the seeming conflict between two theses as a "natural illusion" (V:339) generated due to the different application of the mind's laws. This allows us "to look beyond the sensible and to seek the unifying point of all our faculties a priori in the supersensible" (V:341).

Thesis According to folk belief, taste is indisputable: *De gustibus non est disputandum*. It is not possible to prove an object's beauty, as these kind of judgements do not depend on concepts and rules. ¹⁵⁰

Antithesis Judgements about taste are based on concepts. We can argue [streiten] about taste and "lay claim to the necessary assent of others to this judgement" (V:338 f.).

The *thesis* is true, because concepts are taken as empirical concepts of the understanding, namely 'demonstrable' predicates of possible sensible objects.¹⁵¹ Since judgements of taste are no cognitive judgements, as we have seen, it is indeed the case that these kind of judgements do not entail objective predicates of objects and, in consequence, do not allow a dispute based on proofs.¹⁵² Solely the autonomous subject is allowed to judge the

¹⁴⁹Cf. V:290 n., V:238 f.

¹⁵⁰Recall that this is the second moment in the analysis of the judgement of taste, cf. page 64.

¹⁵¹Cf. V:342. This matter was discussed extensively in 2.2.1.

¹⁵²Cf. V:284 f.

79

beauty of objects by her own standards; there is no other standard having higher authority.

The antithesis is true, because 'concept' is taken as an idea, i. e. an "indemonstrable" (V:342) concept of reason, transcending the limits of the sensible. We already learned that, on Kant's account, judgements of taste demand universal consent, therefore it cannot be the case that taste is just a matter of personal taste. Here, Kant dismantles this threat by taking 'concept' in this statement to be an underlying idea, grounding both the sensible object and the judging subject. ¹⁵³ Thus, since all human beings belong to nature, they are all equipped with the same constellation of the mind by that 'super-sensible substrate of humanity' (V:340), taken as the idea of a divine designer underlying the possibility of nature (including humans). This is how the result of the Transcendental Deduction is grounded in this (speculative) idea. Such a concept of a super-sensible designer is valid to secure the – assumed – universal agreement, according to Kant:

"judgement of taste [...] by means of this very concept [i. e. general ground for the subjective purposiveness of nature, T. M.] [...] acquires validity for everyone (in each case, to be sure, as a singular judgement immediately accompanying the intuition), because its determining ground may lie in the concept of that which can be regarded as the supersensible substratum of humanity." (V:340, emphasis mine)

The idea of a super-sensible designer is entailed in the principle of purposiveness, stating that nature has been designed by a designer unknown to us in concert with our cognitive faculties. If the intelligent designer were part of nature, we could have insight into the purpose, because nature is knowable, and we would have no reason to presuppose a purposive structure we cannot parse. Since this idea is undemonstrable, as transcendental idealism states, we cannot explore this argument more closely. This argument thus cannot be used in a dispute, since it is a meta-argument, not related to the beauty of an object, leaving the truth value of the thesis intact. Yet precisely because the idea is undemonstrable, we are allowed to presuppose it, backing the

¹⁵³Cf. V:340.

universal validity of our autonomous judgements of taste. The account of common sense depends on this idea. Even though we cannot convince someone to agree to our judgement of taste in a dispute based on proofs, we are still allowed to argue about it.

2.2.5 Wrap up of Critique of Aesthetic Judgement

We started our consideration with the particular logical form of judgements of taste being both universal and subjective. Although it would be natural to temper the universal aspirations of these kind of judgements and assimilate them to the merely agreeable, this would also mean to misconceive the strong normative implications and the autonomous considerations entailed in judgements of taste. Therefore, Kant takes these universal aspirations very seriously while stressing the absence of determining concepts in such judgements. In the Deduction it becomes very clear that the central moment is the hidden presupposition of sharing the same constitution of our mind with other human beings. Therefore, we should expect other's agreement with our autonomous statement based on the feeling of pleasure we note when judging a beautiful object. This presupposition is valid because we are allowed to assume a super-sensible designer, which we cannot know in any way, equipping our minds a priori in a common way, as the Antinomy revealed.

In my view, the main theme of the KaU is a transcendental problem, namely the justification of the logical features of judgements of taste in considering the particular contribution of an a priori principle of our mind. While judgements of taste have many aspects, Kant is explicitly and exclusively interested in the contribution of our mind rather than the dispositional features of a beautiful object. Only by an analysis of the particular inner harmonious agreement of our mind while judging an aesthetically pleasing object do we discover the central role of reflection and its a priori principle. We note that in addition to the free play the judgement must be free of individual preferences in order for us to state that anyone should agree, although we can ground such a judgement on nothing but that feeling and do not care about the

actual agreement. Not only is this feeling a genuine contribution of our mind, but the quest for universal agreement additionally depends on the presupposition that everyone shares our mind's constitution based on the idea of a supersensible designer. This answers the genuine transcendental question of how a judgement of taste – a synthetic judgement a priori – is possible.

2.3 Critique of Teleological Judgement

In the Critique of teleological Judgement Kant discusses how it is possible that we can judge natural purposes. For these objects it is true that all parts are means and purpose at the same time. In the following, I will focus on different aspects of Kant's exposition in this second part of the KU where the transcendental aspect is most apparent. Since it is crucial to acknowledge and emphasise Kant's famous denial of a mechanical explanation of natural purposes, I will first contextualise this position within the philosophical discourse at that time. I will also situate the KtU within the Kantian *corpus* to highlight the role of the 'revealed' transcendental principle for this extensive discussion. His account of reflective-teleological judgements attributing objects as natural purposes ("x is a natural purpose") is rather straightforward. Kant does not even offer a Deduction of these kind of judgements. The main issue in this part of the book is, from my perspective, the tension between the mechanical and teleological explanation of natural purposes, which is solved in an extensive Antinomy of Teleological Judgement. In that section we can consider the question of the ground of the possibility of the purposiveness of nature, which, as the Aesthetics notes, "will first be investigated in the Teleology" (V:301).

A preliminary comparison with the dominant reading might help to offer an initial characterisation of my distinctive transcendental reading. As above, I propose to emphasise the a priori contribution of the RPJ to represent natural purposes, while stressing the regulative status of teleological judgements about organised beings. In contrast, much of the work on Kant's "philosophy of biology"¹⁵⁴ tends to presuppose that there is a domain of beings that are organic. In my view, this stands in conflict with a critical approach that explicitly refrains from deciding "anything about its object" (V:395).¹⁵⁵

It is meanwhile an accepted goal among scholars to rule out the contribution of the RPJ, namely the a priori presupposition of the principle of purposiveness. For instance, McLaughlin (1990, p. 180) concludes his influential study by stating that "in Kant's critique of teleology final causes in the proper sense, causae finales, have played more or less no role at all" – a statement that appears simply false in the light of my approach. Kant instead argues that we, as the sense-dependent discursive beings we are, must depend on the principle of purposiveness to comprehend organised beings, even though he is also very clear about the primacy of mechanical explanation. Yet the question is not what is desirable from a (historically determined) scientific point of view, but how our mind relates to these particular objects from a transcendental point of view.

Furthermore, on my account, the concept of natural purpose is crucial to understanding the task of the RPJ. But at the end of the day, these natural purposes – "examples that nature [...] gives" (V:379) – do nothing but challenge the preferred model of mechanical explanation, since we cannot but judge their internal organisation teleologically. This is supported by the outcome of the Antinomy's resolution in the Dialectic in the KtU where Kant clearly gives a very different account of the actual scope of the principle of purposiveness. The principle of purposiveness is not just a principle enabling the mechanical explanation of natural

 $^{^{154}\}mathrm{McLaughlin}$ (1990, p. 5). To contextualise McLaughlin's Neo-Kantian intention to read the KtU as a philosophy of biology, I think it is important to repeat the words of Zammito (2006, 765 f.) "for philosophy of biology today, especially naturalists, Kant has little to offer[,] because the regulative/constitutive-distinction is pointless in practice". Thus, such an approach brings us nowhere.

¹⁵⁵For instance, Toepfer (2011a, p. 119) believes that, according to Kant, "the main aim of teleological reflection is not to explain something but to identify or delimit a particular kind of system." Following my reading, there seems to be a transcendental problem standing in the way of this ability. Additionally, in light of the transcendental aspect, the implicit ontological claim that these kind of objects are fundamentally different from other objects can be avoided.

purposes. Instead, we are "called upon [berufen]" (V:379) to apply this principle to the whole of nature¹⁵⁶, as already announced at the end of the Analytics. This becomes more than obvious in the Dialectics; from the discussion of concurring 'dogmatic' teleological models for the explanation of nature (§§72–3) to the presupposition of a world-cause of nature in the final resolution of the Antinomy (§77–8).¹⁵⁷ Natural purposes prompt us to accept a completely different causal order of nature dependent on a supersensible intelligent world-cause, which transcends our realm of cognition.¹⁵⁸ Leaving the carefully drawn limits of cognition in the KrV, we are forced to clarify the status of reflective judgements. In this case, the teleological judgement is a maxim of the RPJ to enable the inquiry into nature rather than a conclusive determination of organised objects.

This transcendental reading thus challenges the exclusive emphasis on natural purposes, is able to acknowledge the role of purposiveness, and considers the contribution of the KtU to the overall argument, namely to defend it against the theological threat by stressing the reflective status of these judgements.

2.3.1 Natural Purposes: A Historical Overview of Kant's Position

That organisms cannot be explained in sheer mechanistic terms is a rather constant position throughout the course of Kant's career. Allgemeine Naturgeschichte und Theorie des Himmels (1755) (NTH), his first work on cosmology, is still influenced by the mechanistic philosophy of his predecessors, according to which, in the long run, we are able to describe the behaviour of

¹⁵⁶Cf. V:377, 378 f., 380 f., 387 f., 396, 398 f., 414. Förster (2008, p. 267) also reads Kant as saying that solely natural purposes give rise to the insight that empirical nature is contingent (not necessary) for us: "Jeder empirische Gehalt ist vom Standpunkt des Verstandes aus zufällig, aber nur Organismen nötigen zur Annahme einer Absicht, um ihre innere Möglichkeit verständlich zu machen".

¹⁵⁷This is also noted by Geiger (2009, p. 544).

^{158&}quot;For this concept leads reason into an order of things entirely different from that of a mere mechanism of nature, which will here no longer satisfy us. An idea has to ground the possibility of the product of nature." (V:377, emphasis mine, cf. V:398)

organic bodies mechanically. 159

 $^{159}\mathrm{In}\ NTH$ Kant writes: "One should not be surprised when I allow myself to say: that we will have insight into the evolution [Bildung] of heavenly bodies, the cause of their movements, i. e. the origin of the current constitution of the cosmos, before the generation [Erzeugung] of a single herb or caterpillar can be clearly and completely explained according to mechanical principles [Gründen]." (I:230, translation mine, cf. II:107) Note that he does not exclude the possibility of a mechanical explanation of organic phenomena, although he acknowledges the daunting epistemic complexities (cf. McLaughlin 1990, p. 25). For a different reading, cf. Düsing (1968, p. 32). Kant shared this initial position with early modern thinkers. Descartes, for instance, states in Traité de l'Homme that animals are mere automata and their actions can be replaced by machines: "Je désire, dis-je, que vous considériez que ces fonctions suivent toutes naturellement, en cette Machine, de la seule disposition de ses organes, ne plus ne moins que font les mouvements d'une horloge, ou autre automate, de celle de ses contepoids et de ses roues" (Descartes 1982–91, pp. VI, 201). This follows from his mind-body dualism; res extensa is completely determined by universal mechanical laws and does not leave room for teleological explanations.

Differently, Leibniz argues in Discours de Métaphysique that all occurrences can be explained both mechanically and teleologically (§21), since the order of nature and mind have been brought into harmony such that the individual behaviour accords with individual intentions and general natural laws. This model is known as parallelism. While the teleological explanation is easier and quicker, the mechanical explanation is more extensive and exact (cf. §22). The latter is preferred, since it "goes much deeper and is in a measure more immediate and a priori, is also more difficult when we come to details" (Leibniz 1989, §22). At the end of the day, the mechanical explanation has priority and can be applied to all appearances without limitations (for a different reading, cf. Wundt (1924, pp. 103, 357)). While this is the metaphysical perspective, the same is true for the biological framework. In respect to biological explanations Leibniz follows his mechanical agenda and recurs - in line with the metaphysical principle of a pre-established harmony – to the concept of 'preformation': all changes occurring to a particular organic body are already entailed in its initial germ. Ultimately, an organism differs from simple matter only quantitatively, namely in respect to its complexity: "Leibniz's nonstandard biological mechanism considers organisms as natural machines, the structures of which are – composed of parts in functional arrangements - with parts containing further parts, ad infinitum." (Fisher 2003, p. 374) This clearly is a mechanical account.

I suppose that Descartes and Leibniz are representative of the mechanistic philosophy, although many more could be listed. I have decided to omit a detailed account of the progress made in the life sciences during the 18th century and instead present some key philosophical positions to situate Kant's novel position within the philosophical discourse, even though I do not question his significant interest in and knowledge of the life sciences of his days. For a general overview of biology during the early

Yet in the related metaphysical justification of the NTH, namely BDG, his position shifts away from the mechanistic conception of his predecessors, since he excludes the possibility of a mechanical explanation of the structure of an organic body. 160 This new position is maintained until the KU through the KrV^{161} , the short writings on human races and the Metaphysische Anfangsgründe der Naturwissenschaften (1786) (MAN). In all of these writings Kant distinguishes strictly between unorganised inert matter and organised vital bodies where his contemporaries instead saw a continuity. 162 The Opus Postumum marks a further important and exciting shift, but I do not consider it to be of direct relevance for our current issue and therefore have decided to avoid those complexities. 163

There are certain reasons to take this continuity in his position with care. Kant's position on physical laws shifts between *in-fluxus physicus* and pre-stabilised harmony, also affecting the role of organisms. According to advocates of *influxus physicus* the direction and speed of impenetrable bodies can be explained exclusively by external attracting and repulsing forces. According to advocates of a pre-stabilised harmony, the bodies' movements

modern period along the lines just sketched, see Fisher (ibid.). For a short well-informed overview anticipating Kant's contribution, cf. McLaughlin (1990, pp. 7–24). For an extensive scholarly study of the transition from preformation to an epigenetic account of the generation of organisms during the 18th century, cf. Goy (2017, pp. 288–385).

¹⁶⁰Cf. "The structure of plants and of animals displays a constitution which cannot be explained by appeal to the universal and necessary laws of nature." (II:114) Ferrini (2000, pp. 297–311) comes to a similar conclusion in her in-depth study of Kant's early position towards organisms.

¹⁶¹E. g. A694/B722.

¹⁶²The first Critique quickly touches upon the regulative use of the principle of purposiveness by physiologists and states cautiously in respect to natural purposes that it is "nevertheless quite impossible to prove in any one case that a natural arrangement, whatever it might be, has no end at all." (A688/B716) In Über den Gebrauch teleologischer Principien in der Philosophie (1787) (ÜGTP) Kant notes that human reason can determine certain objects, like organisms, only teleologically (VIII:179). In MAN he restricts the scope of natural laws to innate matter: lex inertiae is another way of saying that the sum of matter as an object of the senses is innate (cf. IV:544). Living is defined as a "faculty of a substance to determine itself to act from an internal principle" (IV:544). One should be cautious about conflating living and natural purpose, but I will ignore that for the moment in favour of the point I wanted to make here.
¹⁶³Cf. Förster (2000).

are exclusively initiated by self-moving monads according to a pre-determined order. How Moreover, the difference between critical and pre-critical thought, which plays a central role throughout the current inquiry, has a significant impact on the transition from a mechanistic to a teleological position. Therefore I will do my best to indicate when we are considering the issue in an ontological or a critical mode. Apart from that, Kant did not fully develop his account of organisms before the writings on human races; therefore one might question how much depends on it. Last but not least, one should be careful not to conflate the living and natural purposes, since for the first spontaneity of movement is the crucial feature whereas internal organisation is crucial for the latter, which is merely described as an analogy of the living, "Analogon des Lebens" (V:374). 165

Inert Matter vs. Organised Bodies

Leaving those issues aside for a moment, there is a more general point I would like to make: the fundamental distinction between inert matter and organised bodies is a constant element from his early cosmology till the KU, marking a significant deviation from his Early Modern predecessors. ¹⁶⁶ As we have seen before, this culminates in the famous remark that there will never be a Newton able to derive the generation of a blade of grass from blind natural laws. ¹⁶⁷ Yet before we consider Kant's technical account of a natural purpose, I would rather first parse this basic distinction in order to understand the problem. In order to do so, we might consider the following illustration of the distinction between animated (or living) and inert matter in $Metaphysik L_1$ (Pölitz) (late 1770's) ($MetL_1$):

"The concept we have of matter is the following: materia est extensum impenetrabile iners. When we, for instance, perceive a stobe of dust on a piece of paper; we see if it

 $^{^{164}\}mathrm{Cf.}$ Laywine (1993, chapter 2), Friedman (1992b, intro).

¹⁶⁵This point is stressed in Düsing (1968, p. 117).

¹⁶⁶McLaughlin (1990, pp. 16–24) lists four factors that lead to an important shift towards the acceptance of a life force in biological theory during the 18th century, most importantly the discovery of the regenerative capacities of the polyp.

¹⁶⁷Cf. V:387, 389, 400.

is moving. Does it not move by itself; we take it to be inanimate matter, which is inert, and which will remain lying there forever if it is not moved by something else. As soon as another matter moves, we see if it moves contingently by itself. In case we observe such behaviour by a stobe of dust; we say it is animated; it is an animal. An animal is also an animated matter; since life is the ability to determine itself from the inner principle according to contingency [nach Willkühr]." (XXVIII:274, translation mine)

Surely, in this citation Kant is discussing an animal rather than a plant (which would better represent the full domain of organisms), but the point I would like to make is the same. A necessary characteristic of matter is, according to the MAN, its inertness. 168 In contrast, living matter lacks precisely that characteristic: it is, as it is called here, 'animated matter'. That is, unlike inert matter, the direction and speed of which can be changed only by external causes 169, animated matter has – among other features like reproduction and regeneration – the ability to move spontaneously. Therefore, their movements must appear highly contingent under mechanical laws. As a result, the expectations about the behaviour of the body must change fundamentally, as the quote clearly illustrates. One might object that living bodies must not be subsumed under (mechanically ordered) matter, since they lack a necessary feature of matter (i. e. inertness). This objection delivers us right into the heart of the problem of the Antinomy, namely: organised matter is part of nature and yet it behaves highly contingently. This is, as announced, merely an interim description of the problem.

Purposiveness and Natural Purposes

Although he had this problem of organisms in mind since the BDG, Kant did not consider it seriously until the 'discovery' of the principle of purposiveness in the KU, confirming the need to explore the transcendental implications of teleological judgements

¹⁶⁸Cf. IV:544.

 $^{^{169}}$ Recall Newton's first law of motion, lex inertiae. This is Kant's second law of mechanics in the MAN, cf. IV:543.

about organised bodies. One might object to this claim that it had already become a main theme in Kant's writings on human races. The Zammito (2003, p. 78), for instance, believes that these writings directly flow into the composition of the KU. Surely, the account of a natural purpose echoes the determination of the account of an organic being in $\ddot{U}GTP$: "a material being which is possible only through the relation of everything contained in it to each other as end and means" (VIII:181). Yet what is missing in those writings is the specific transcendental account of purposiveness as developed in the KU. Instead, Kant relies upon a 'relative' account of purposiveness in those writings.

I believe that the principle of racial variation in Bestimmung des Begriffs einer Menschenrace (1785) (Bestimmung) is only concerned with the long-term development of the races out of the ancestral species, ensuring that all the variations of a species are part of one trait. It should be noted that this theory does not interact with the complications established by the functional unity in the single organism and its parts as discussed in the KtU. Therefore, the problem imposed by this "example of nature" is not considered to its full extent, since the realisation of dispositions [Keime], like the instantiation of races under different climatological conditions, is a successive process, which can be described mechanically, whereas the mutual causal processes within (parts of) an organism are simultaneous and can not be described mechanically. For the very same reason I believe it is not true that "Darwin had solved Kant's great puzzle" 171 .

¹⁷⁰Since the *concept of race* is a beloved criterion of selection in racist and discriminating policies, ideologies and concrete practices, I would like to stress that the following discussion is descriptive and should not have any normative implications. It is undeniable that one will find non-excusable racist elements in the primary texts by Kant under consideration and elsewhere in the *corpus*. See Mikkelsen (2013) for a balanced discussion of the literature on this sensitive topic; see VIII:174 n. and 176 for examples of racist elements.

In the Lectures on Anthropology from 1781 Kant relies on a hierarchical account of races, stating that white race "contains all incentives and talents in itself" (XXV:1187) while other races do *not* contain all incentives and talents. Later, in his discussion with Herder, Kant drops the hierarchical account and reduces race to colour of skin (cf. 6.4). Hence, I want to emphasise that this discussion distances itself from those statements and concentrates instead on the methodological implications.

¹⁷¹Mayr 1988, p. 58.

In the case of generation over time, we are dealing with what is called in §63 'relative' purposiveness, which does not force us to presuppose nature's order in concert with our discursive intellect. Assuming some grant plan for a pre-stabilised harmony to explain their existence would be unjustified and "presumptuous" [vermessen, V:369], Kant believes. Rather, these and similar cases of relative purposiveness can easily be explained in mechanical terms. In the case of natural purposes we are confronted with a transformation of matter that can only be understood in analogy with a non-mechanical causality.

Organised Bodies and the Account of Mechanics

Even though we mainly looked at different places within the Kantian corpus, we are already approaching the problem at stake. This problem is the behaviour of 'organised bodies', as the author of the KU prefers, which cannot be explained according to mechanical laws. Rather, they will appear contingent within a mechanical framework. Furthermore, the above contrast with the account of race in the Bestimmung made it clear that it is their internal organisation, according to which the parts are cause and effect of each other simultaneously, that renders them incomprehensible according to mechanical laws. Before we will consider the particular neologism Kant developed for these objects within his transcendental philosophy, we should clarify what account of mechanics is at work.

Mechanics explains how bodies change their position with time under presupposition of the law of inertia. Thus it considers the movement of matter only in relation to the reciprocal transmission of movement by other bodies through attraction and repulsion. 172 Such an explanation of the movement of matter is derived, abgeleitet, 173 from the mechanical principles developed in the Mechanics chapter of the MAN: 174

¹⁷²Cf. Pollok 2001, p. 392.

¹⁷³Cf. "For to explain means to derive from a principle, which one must therefore cognize distinctly and be able to provide." (V:412) A few sentences later Kant describes an explanation as a "distinct and determinate derivation" (V:412).

¹⁷⁴Marc-Wogau (1938, p. 220) distinguishes between mechanism as:

- 1. a principle of the *conservation* of the total quantity of matter (cf. IV:541);
- 2. the law of inertia (cf. IV:543);
- 3. the law of the equality of action and reaction (cf. IV:544 f.).

If we know certain variables, like volume, speed, direction and density, it becomes possible to – $ceteris\ paribus$ – give a full account of the object's future movement according to the mechanism of blind effective causes. Therefore, if nature is the realm of the objects we can know, its causal order should be mechanical; this is the only way to explain movement of matter in space. In consequence, striving for mechanical explanations is a heuristic maxim. ¹⁷⁵ In contrast, a teleological description is just 'tautological' (V:410) rather than proper knowledge.

With a clearer picture of the account of mechanics, we can specify in which respects the behaviour of organised bodies is contingent within a mechanical framework, i. e. the organised bodies' non-being can be thought of. For instance, however advanced the (mechanically constructing) engineering ever might be, they will never come close to the way sheer matter is (re-)organised by the *Bildungstrieb* (V:371), a concept which Kant, in a rare moment of affirmative reference, derives from his contemporary biologist Blumenbach. The account of *Bildungstrieb* refers to the capacity of a body to reproduce on the level of the species and

- causality in general, regardless of the form of our mind;
- determination of the particular by effective causes for the human understanding;
- "sheer laws of movement" (V:390).

Even though I am not sure if (i) is a meaningful option in transcendental philosophy, he is right that Kant does not always clearly distinguish between (ii) and (iii). Therefore, it is important to make a decision as an interpreter. I agree with the clear preference for the MAN-account (iii) expressed in Zuckert (2007, 102 f.). See Friedman (2013) and Pollok (2001) for excellent work on the MAN.

¹⁷⁵Cf. "We can and should be concerned to investigate nature, so far as lies within our capacity, in experience, in its causal connection in accordance with merely mechanical laws: for in these lie the true physical grounds of explanation, the interconnection of which constitutes scientific cognition of nature through reason." (XX:235)

the individual.¹⁷⁶ One might think here of a range of activities under the heading of 'epigenesis' (V:423, emphasis mine), such as reproduction, growth through nourishment, assimilation and regeneration. More specifically, Kant distinguishes generation on the level of the species (reproduction), the individual (growth) and the organised parts of the individual (preservation of the parts).¹⁷⁷ Crucial for all of these processes is the transition from unformed into organised matter.

Here Toepfer (2011b, p. 121) helpfully points out that, unlike sheer matter, organisms "maintain their identity despite their change of matter and form" – exemplified most clearly by organisms that go through various metamorphoses, like butterflies. In other words, for such objects it is true that the mutually dependent parts constitute a "functional unity" 178: the parts themselves constitute the whole by generating and maintaining each other reciprocally 'at the same time'. 179 It is not true of an artefact that it is able to generate, constitute and maintain itself reciprocally and simultaneously. Organised bodies are idiosyncratic for us, not because of the external or relative purposive relations they might accord to, but because of the internal purposive relations

¹⁷⁶Cf. V:424. See Zammito (2003) for historical background.

¹⁷⁷Cf. V:371. According to Lovelock (2000, p. 9) the biosphere as a self-regulating entity can be considered to be an organism. His focus on cybernetics disregards the central role an epigenetic activity like reproduction plays – obviously the planet Earth is not able to reproduce. I would suggest that cybernetics in general can be discussed in terms of the category of community, stating that "all substances, insofar as they can be perceived in space as simultaneous, are in thoroughgoing interaction." (B256)

¹⁷⁸Toepfer 2011b, p. 111.

¹⁷⁹Cf. V:373. Toepfer (2011a, p. 111) stresses the difference between this Kantian account of a functional unity and Aristotle's dispositional account of organisms whose main end is reproduction. This opposition saves us from false expectations like those of Watkins (2009, p. 120) when he ascribes to Kant the view that the existence of a tree demands an explanation of the reason why it exists. The adaptation of Mayr's teleonomy by Düsing (2013, p. 95) is also problematic for the same reason. Similarly, Ginsborg (2004, p. 312) feeds false expectations by comparing Kant and Aristotle on the study of organic nature, concluding that for "both philosophers, the study of nature requires the investigation, not only of the regularities governing inorganic matter, but also of the regularities characteristic of each species of living thing." According to the view I am presenting, such a dispositional account is not at all relevant in the KtU.

between the parts and the whole. 180 Therefore, the explanation of their genesis cannot be reduced to discrete particles of matter constituted by repulsion and attraction according to the empirical mechanical laws of nature.

2.3.2 Reflective Judgements about Natural Purposes

Above we presented a rather extensive account of the problem of organised bodies within a mechanical framework. Moreover, we described how this problem evolved within Kant's work but did not take on a central role before the KU. As we saw in the example of the insect moving over the page (see page 86), the behaviour of living bodies is fully contingent within a mechanical framework, yet the third Critique does not stop at that point, but offers an additional explanation drawing on the 'discovered' principle of purposiveness. I have formulated the hypothesis that the discovery of the principle of purposiveness pressed Kant to develop an account of what he coins 'natural purpose'. I have already indicated that this account is only relevant within the transcendental context of the third Critique, namely the a priori contribution of our RPJ to reflective judgements concerning organised bodies. Below I will argue for this position.

First of all it is remarkable that Kant primarily uses a technical term to denote these objects rather than terms like organism, the living, animated matter or something similar. I suggest that the neologism 'natural purpose' underlines the critical problem we are facing: there is an object which, as far as we can know, is *only* possible as a *purpose*, namely as an object caused by a concept, even though we cannot have insight into that purpose. ¹⁸¹ The term 'purpose' is in this context – analogically – derived from practical reason, being the faculty setting a purpose, namely

¹⁸⁰Cf. V:370, 372, 375 f.

¹⁸¹Cf. "In order to see that a thing is possible only as an end, i. e., that the causality of its origin must be sought not in the mechanism of nature, but in a cause whose productive capacitya is determined by concepts, it is necessary that its form not be possible in accordance with mere natural laws, i. e., ones that can be cognised by us through the understanding, applied to objects of the senses, alone; rather even empirical cognition of their cause and effect presupposes concepts of reason." (V:369 f.)

the ground, Grund, for the will's self-determination.¹⁸² Yet this purpose appears "in nature" (V:405), where 'nature' refers to the sum of all lawfully organised objects insofar as we can experience them.¹⁸³ Following the maxim formulated previously, we should judge nature according to the "mechanism of blindly acting causes" (V:381), i. e. general 'non-intentional' (V:428) laws of movement, in order to fulfil the understanding's need for cognition. Hence, the term 'natural purpose' points out that the kind of objects we describe accordingly are incomprehensible within Kant's account of (mechanically explained) nature.¹⁸⁴

Secondly, this neologism, which lacks sense and meaning in the biological discourse and therefore cannot operate as a determining feature, reflects the fact that we cannot have insight into the causal order. Kant initially notes that there is a "distanced [ent-fernte] analogy" (V:375) with the causality we know of. Indeed, up to a certain extent we can know our own purposes and those of other fellow human beings¹⁸⁵ thanks to a shared will, and we might assume a similar conceptual causality at work in these objects. Yet Kant is quick to correct himself, stating that they are the *only* objects in nature having "no analogy whatsoever with any causality we know of." (V:375)¹⁸⁶

¹⁸²Cf. IV:427.

¹⁸³Cf. chapter 3. Cf. "It is the same with the concept of a natural end, as far as the cause of the possibility of such a predicate is concerned, which can only lie in the idea; but the consequence that answers to it (the product) is still given in nature." (V:405, emphasis mine). Elsewhere Kant deploys the term Darstellung (presentation) to emphasise this circumstance: "thus we can regard natural beauty as the presentation [Darstellung] of the concept of formal (merely subjective) purposiveness and natural ends as the presentation of the concept of a real (objective) purposiveness" (V:193). Moreover, terms like Naturzwecke and Naturprodukten confirm that these objects are part of nature rather than an exclusive domain where different natural laws are at work (e. g. V:186, 370-2, 382, 387, 397-400, 408, 413, 418 f., 422, 425, 427, XX:218, 232 f.).

¹⁸⁴E. g.: "But that things of nature serve one another as means to ends, and that their possibility itself should be adequately intelligible only through this kind of causality, for that we have no basis at all in the general idea of nature as the sum of the objects of the senses." (V:359)

¹⁸⁵This is quite a blunt statement from today's perspective. Nowadays, philosophers tend to say that intentional judgements do not simply motivate action, but stand in a more complex interaction with actions. See Anscombe (1957) for such a sophisticated theory of action.

¹⁸⁶Cf. 374, 389.

Reflecting about Natural Purposes

Having said that, we are in a better position to acknowledge that we are dealing with a reflective judgement, led by the principle of purposiveness without a purpose, in accordance with the overall work. In the Introduction to this inquiry we already stressed the distinction between the determining and reflecting modes of the power of judgement. Determination is the subsumption of a subject under one or more predicates, reflection is the search for more general representations. In the case of aesthetic judgements with the logical form "x is beautiful", 'beautiful' does not determine the singular object x, but rather expresses – from a transcendental point of view – the responsiveness of nature to the particular form of our mind, a principle given to itself by the RPJ. Likewise, in the case of teleological judgements of the form "x is a natural purpose", it is not the case that 'natural purpose' determines the (kind of) object x. A judgement of this kind rather states that we are not able to parse the causal order of that object. Elsewhere Kant states that "one does not know whether one is judging about something or nothing" (V:397, cf. 388 f.), since we are ignorant about its causal structure. 187

Concerning these kind of statements I believe Kant does not provide the epistemology for a "full understanding of [organic, T. M.] nature's workings", as Ginsborg (2004, p. 61) seems to suggest in her affirmative comparison with Aristotle's philosophy of biology – at best Kant remains agnostic about the possibility of that aim. Rather than being a conclusive judgement, the teleological judgement expresses our basic *attitude* towards the object, while we continue our investigations of empirical nature according to empirical laws. The following quotes confirm that clearly:

"The concept of a thing, as in itself a natural end, is therefore not a constitutive concept of the understanding or of reason, but it can still be a regulative concept for the reflecting power of judgement, for guiding research into objects of this kind and thinking over their highest ground in accordance with a remote analogy with our own

¹⁸⁷This point is made forcefully and convincingly in Kreines (2005, p. 283). Cf. Geiger (2009, p. 541).

causality in accordance with ends in general [überhaupt]" (V:375, emphasis mine)

"It is self-evident that this is not a principle for the determining but only for the reflecting power of judgement, that it is regulative and *not constitutive*, and that by its means we acquire only a guideline for considering things in nature, in relation to a determining ground that is already given, in accordance with a *new*, *lawful order*, and for extending natural science in accordance with another principle, namely that of final causes, yet without harm to the mechanism of nature." (V:379, emphases mine¹⁸⁸)

The RPJ offers a guiding thread [Leitfaden], not for explanatory reasons, but to allow further investigation [Nachforschung].¹⁸⁹ This regulative ascription of an inner purposive order to the object is a prerequisite for the subject to relate to that object, therefore the RPJ enables us to reflect on natural purposes.¹⁹⁰ A teleological judgement just states that the parts and the whole of the object are both cause and effect of each other at the same time, being the condition under which we are able to investigate organic nature. As a result, it guides our approach the object, namely as an object ordered purposively. A teleological judgement sets the stage, if you prefer, for heuristic means, by a priori presupposing organisation according to purposes.¹⁹¹ By calling the principle of purposiveness a guiding thread and the account of natural purpose

¹⁸⁸Cf. V:412. Here are more citations along those lines:

Cf. "Nevertheless, teleological judging is rightly drawn into our researchinto nature [...], but only in order to bringit under principles of observation and research in *analogy* with causality according to ends, without presuming thereby to *explain* it." (V:360)

Cf. "For since we do not actually observe purposes in nature as intentional, but merely add [hinzudenken] this concept as a guideline [Leitfaden] for the power of judgement in reflection on the products of nature, they are not given to us through the object." (V:399, cf. Zuckert (2007, 368 f.))

Cf. "Now it is clear that in such cases the concept of an objective purposiveness of nature serves only for the sake of reflection on the object, not for the determination of the object through the concept of a purpose" (XX:236, cf. V:388, 396, 400).

¹⁸⁹Cf. V:360, 369 f., 375, 379, 386, 389. Cf. for *Leitfaden*: V:185, 376, 379, 386, 398, 410, 417.

¹⁹⁰Cf. XX:218, 234.

¹⁹¹Cf. V:387 f.

a 'maxim' $(V:376, 385 \text{ ff.})^{192}$, Kant refers precisely to such an auxiliary hypothesis necessary to investigate the functions and activities of the organised parts. Kant adds that we rely on this guiding thread as much as we rely on the natural laws (categories) for experience in general. ¹⁹³

A simple example from the EEKU might be helpful: the inquiry of the human eye should be led by the presupposition that its parts – e. g. crystalline lens, pupil, iris – have certain purposes (or functions, in contemporary terms). In the case of the crystalline lens its purpose is to reunite the light coming into the retina in order to see (XX:236).¹⁹⁴ Without a preliminary account of the eye's purposive order, its construction would look random and contingent. Or to use a further example provided elsewhere: even if we can explain certain parts of an animal according to mechanical laws, e. g. its bone structure, this is *only* possible if everything in the animal is considered to be fully organised according to a purpose. ¹⁹⁵ In other words, the primacy Kant gives to mechanical explanation is possible only under the application of the principle of purposiveness to certain objects which appear to us as self-organised bodies. ¹⁹⁶

Whereas a natural purpose is a *terminus technicus* in Kant's philosophy in order to describe a subject's attitude, allowing the search for its regularities, it does not determine the object. We might also want to keep in mind that it is different from a

¹⁹²See 5.2 for a more extensive account of maxims.

¹⁹³Cf. V:385 f.

¹⁹⁴Cf. "Only of the eye do I judge that it ought to have been suitable for seeing, and although its figure, the character of all its parts and their composition, judged in accordance with merely mechanical laws of nature, is entirely contingent for my power of judgement, I nevertheless think in its form and in its construction a necessity for being formed in a certain way, namely in accordance with a concept that precedes the formative causes of this organ" (XX:240, second emphasis mine).

 $^{^{195}{\}rm Cf.}$ V:377, V:410 f.

¹⁹⁶I agree wholeheartedly with Kreines (2005, 290 f.): "The ultimate (though perhaps unreachable) goal of such research is to analyze living beings until we can form empirical concepts fit to classify their parts into natural kinds, and to frame natural laws governing how those parts produce systems with just these capacities." Cf. Toepfer (2011b, p. 119): "teleology in the natural sciences is neither a way of finding knowledge, i. e. a preliminary heuristic tool that is becoming increasingly superfluous as science progresses, nor a means of giving an explanation".

beautiful object, because we do not consider nature – as the sum total of all objects of experience – to be purposive in relation to our mind. Rather, what is purposive is the organisation of this very object "given *in nature*" (V:405, my emphasis).

2.3.3 Reconciliation of the Antinomy of Teleology

I have announced that the Antinomy in the KtU formulates a central moment for our approach, considering the question of the ground of the possibility of nature's purposiveness, which, according to the Aesthetics, "will first be investigated in the Teleology" (V:301). It is a complicated argument involving many aspects, which therefore should be treated carefully. I do *not* seek to offer a detailed commentary on the reconciliation, but I rather intend to elaborate only enough to confirm the transcendental issue at stake, namely the necessary contribution of our mind to our relation to objects of experience.

This transcendental perspective is expressed by the titles of the paragraphs of this Antinomy: §71 prepares the reconciliation, §72 and §73 discuss the various 'dogmatic' (i. e. non-critical) systems of nature's purposiveness while §74 argues for the "impossibility of a dogmatic treatment" (V:395) of the account of purposiveness. In §75 the objective purposiveness of nature is considered as a "critical principle of reason for the RPJ" (V:397). Since this principle forces us to accept a supersensible creator from our - restricted - perspective, Kant introduces a comparison with non-human divine intellects in §76, not in order to prove, but to elaborate on that critical approach. §77 utilises the comparison between our RPJ and an intuitive understanding in order to identify our relation to natural purpose as a "peculiarity of our human understanding" (V:405) rather than a peculiarity of a certain domain of objects in nature. Finally, §78 presents how the evoked supersensible creator enables the "unification of the principle of the universal mechanism of matter with the teleological principle" (V:410).

The initial part of this subsection is dedicated to the main conflict between two contradictory maxims concerning the generation of matter, focusing especially on the scope of both maxims. This, I will argue, evokes a theological threat, namely the presupposition of a supersensible substrate of nature due to the teleological description of the generation of particular objects in nature (natural purposes). Subsequently, I will shed light on the comparison with a limiting concept that helps us to understand our teleological approach as a consequence of the peculiar constitution of our mind. Finally, the reconciliation of the antinomy is realised according to my reading if we acknowledge that (i) we must give priority to the teleological maxim for reflection due to the problem of the mechanical inexplicability of natural purposes for us and (ii) the applied principle of purposiveness implies a supersensible 'architect of nature' in which the teleological and the mechanical principle are unified.

Conflict between Two Maxims

As in every Dialectics, an illusionary conflict between two mutual exclusive universal principles, situated in the "nature of our mind" $(V:386^{197})$, is resolved. In this case a conflict arises between two maxims:

- I. the generation of *all* material objects should be explained in accordance with mechanical laws of the movement of matter.
- II. the generation of some objects (natural purposes) cannot be explained in accordance with mechanical laws of the movement of matter, but must be judged according to ends.¹⁹⁸

It is contradictory to demand a mechanical explanation for the generation of all objects while, at the same time, acknowledging that we cannot demand a mechanical explanation for the generation of all objects – and *vice versa*. Moreover, the teleological and mechanical principles cannot co-exist: "one kind of explanation excludes the other" (V:412). That we are facing a true conflict, a contradiction, is illustrated by translating the maxims,

¹⁹⁷Cf. V:376.

¹⁹⁸Cf. V:387.

prescriptive principles without a truth value, into constitutive statements, such that:

I.
$$\forall x(Gx \to Mx)$$

II.
$$\exists x (Gx \to (Tx \land \neg Mx))$$

Above, x is a variable for a material object of intuition, G is the generation of the object, M is the act of judging according to mechanical laws and T the act of judging according to teleological laws. I will draw on this semantics below. Although this translation into constitutive judgements helps us to see the conflict, Kant notes that the latter so-called constitutive antinomy is for illustration only. Less charitable readers, like we described in 1.2, take this opportunity to mark one of the "many complexities, mysteries, and puzzles" in the KtU, even though Kant states clearly that this conflict of constitutive statements would be one of reason rather than of the RPJ. 201

One might ask oneself: why are we dealing here with an Antinomy of the RPJ rather than of the understanding as the faculty of rules? The RPJ reflects, i. e. it searches for general representations (concepts, laws, rules) to accommodate objects of experience. This mental activity includes the application of criteria to find similarities and differences as well as the consideration of methods and means to determine those criteria in order to arrive at the general representation we aim at. Having said that, we should point out that maxims are practical or theoretical subjective principles; in this case we are considering a matter belonging to theoretical philosophy, hence maxims are subjective "regulative principles for investigation [Nachforschung]" (V:387), obligatory "to come to know nature as far as its empirical laws are concerned" (V:386). Thus, the formulation and application of maxims is a manifestation of reflection, as we noted in the Introduction and will explore in more detail in 5.2. This is the reason why the RPJ gets caught in a dialectic between two maxims rather than between two judgements. A position which does not consider the

¹⁹⁹In contrast, McLaughlin (1989, p. 144) considers the constitutive antinomy to be a "preparation and comparison" for the discussion of the dogmatic position in §§72–4.

²⁰⁰Watkins 2014, p. 117.

²⁰¹Cf. V:387.

transcendental aspect, but focusses on the biological implications, will instead consider this as a conflict of two judgements about methodology.

Having determined the relevant antinomy in §70, we should recall how the regulative antinomy appears. Generation of matter is the process of formation, production or "causality of origin" (V:369) of objects of outer sense that are able to move. We demand an explanation of their generation that is derived from blind mechanical laws, because this is the only way to gain "insight [Einsicht] into the nature of things" (V:410). Yet we have already seen in 2.3.2 that, due to the Bildungstrieb, the development of inert matter into organised matter cannot be explained that way, since these processes appear highly contingent in light of mechanical laws. Thus, we presuppose a "completely [ganz] different" (V:388, translation modified) principle, namely a spontaneous purposive causality, which disregards blind mechanical laws in order to be able to parse the regularity behind the behaviour of these natural purposes. Some interpreters tend to disregard the role of purposiveness in the explanation by describing it as "non-mechanical explanations"²⁰², overlooking, as I would suggest, the central role of the transcendental principle of purposiveness.

Both the first and the second maxim are necessarily operative in our inquiry into nature's empirical regularities. Even though the talk of maxims might evoke associations with heuristics, they are no optional means to arrive at concepts, but depend on the particular constitution and contribution of our mind, as the reconciliation will present forcefully. Therefore, the reconciliation of the Antinomy is particularly interesting from the perspective advocated throughout this study.

Ground of Possibility of Nature

If instead we take these maxims as optional heuristic principles, we do not encounter an actual conflict, as Kant himself quickly suggests after presenting the Antinomy. It seems a truly justified

²⁰²McLaughlin (1989, p. 124), Ginsborg (2004, 35 f.). If the problem of teleology is excluded, it is not easy to understand the transcendental problem of this section. For a similar critique, cf. Kreines (2005, 296 n.).

procedure to explain mechanically as much as possible while relying on teleological description to save us where the mechanical approach does not work. 203 On such a reading, advocated by Cassirer (1921), there are two ontologically distinct domains ruled by different causal orders. Yet such a reconciliation disregards that we are considering one single domain, which is *nature*, where the same laws (i. e. categories) apply. Therefore, another ground must be found. Indeed, in the aftermath of this seeming early reconciliation, it is pointed out where the actual problem lies, namely that the RPJ is "forced" [$gen\ddot{o}tigt$] to find a different principle "as the ground of the possibility" (V:388) of nature. As in the Antinomy of the KaU (cf. 2.2.4), and all other antinomies in Kant's critical work, this principle is a supersensible substrate of nature. As above, the aspirations of the RPJ must be tempered by recalling the regulative and subjective status of its maxim.

Taking the teleological maxim (falsely) to be a determining judgement brings the threat of the *theological consequence*. This consequence is clearly stated in the following citation from §75:

"because of the peculiar constitution of my cognitive faculties I cannot judge about the possibility of those things [natural purposes, T. M.] and their generation except by thinking of a cause for these that acts in accordance with intentions, and thus by thinking of a being that is productive in accordance with the analogy with the causality of an understanding." (V:397 f.)

Regardless of how the unknown "inner ground of nature" (V:388) is structured, we are forced to judge natural purposes in a teleological way, since the mechanical approach necessarily fails. Due to the limits of our cognitive faculty we cannot prove the possibility of natural purposes; a teleological description is the only available causal explanation for us to parse the order of organised bodies and, potentially, discover their regularities (cf. 2.3.1). This is worrying not just because it conflicts with the preferred scientific mode of explanation, which is mechanical, but also because such a principle evokes an "intelligent, super-sensible cause" (V:416, 422) underlying the possibility of natural purposes. Therefore, Kant notes in the Aesthetics that the question of the ground of

²⁰³Cf. V:387 f.

possibility of the purposiveness of nature "will first be investigated in the Teleology" (V:301), namely, at this very point where the theological consequence becomes apparent.

One might ask: why is an intelligent super-sensible ground of nature evoked by judging the generation of natural purposes? The answer starts with the incompatibility of both maxims. Since we cannot derive both maxims from each other, we must think their compatibility in one principle that lies outside of both maxims and therefore outside of the sphere of empirical nature²⁰⁴, vet entails the ground of both to ensure the unity and continuity of our experience of nature. This transcendent principle goes also under the banner of an intellectual intuition, a 'real ground' [Realgrand, V:409²⁰⁵], the 'first inner ground' (V:388) or a 'supersensible substrate' ([übersinnlicher Substrat] (V:388, 410, 412, 415, 418), as becomes quite obvious in one version of the principle's description: "nature is represented through this concept as if an understanding (even though it is not ours) contained the ground of the unity of the manifold of its empirical laws." (V:180 f., translation modified)²⁰⁶

Due to its productivity, an intellectual intuition cannot distinguish between modal categories, since everything thought is immediately provided and therefore actual, while a human understanding distinguishes between three categories of modality. This is an ultimate ground insofar as we cannot offer another more fundamental productive ground of nature. Therefore, this is an actual threat of theology evoked by judging natural purposes "given in nature" (V:405). Whereas judgements of taste assume nature to be organised in concert with our mind, natural purposes' demand for a supersensible cause is much stronger. This needs to be acknowledged if we are to understand the role of the following

 $^{^{204}}$ Cf. V:411 f.

²⁰⁵Comparing the pre-critical cosmological argument and the argument behind the principle of purposiveness in Menting (2016), I give a central role to the account of 'real ground', referring back to the pre-critical work, which in both cases is introduced to solve the contingency of empirical nature's manifold forms.

²⁰⁶In the popular writing ZeF the "great artist nature (natura daedala rerum)" (VIII:360) itself is ascribed intelligence and providence, yet this blurs the account of nature.

 $^{^{207}{\}rm Cf.}$ V:402.

sections of the Antinomy.²⁰⁸

Moreover, the reference to a supernatural substrate of nature makes clear that the actual conflict occurs between two opposing principles of nature rather than between the opposing explanations of the domain of inert matter and of the domain of organised bodies. In contrast, Cassirer (1921, pp. 330–2) thinks that these two domains are respectively ordered by a general constitutive and an additional regulative principle.²⁰⁹ Yet such a position misconceives the *universal claim* by the RPJ in line with the scope of the principle of purposiveness of nature.

Here I would like to point out that the dogmatic systems in §§72–3 are all applications of purposiveness to *nature*, taken as the sum total of all possible objects of experience. Furthermore, in §74 Kant acknowledges that the account of a natural purpose presupposes a supersensible designer, i. e. a ground of nature, whose influence is not restricted to a particular domain of nature. In §75 the extension of the teleological maxim to the "whole of nature" is called "obvious" (V:398). Finally, this move from a particular to a universal scope is clearly presented in §67, titled §67 "On the principle of the teleological judging of *nature in general* [überhaupt] as a system of ends" (V:377, emphasis mine), and is presupposed throughout the antinomy:

"However, this concept [of matter, T. M.] necessarily leads to the idea of the whole of nature as a system in accordance with the rule of ends, to which idea all of the mechanism of nature in accordance with principles of reason must now be subordinated (at least in order to test natural appearance by this idea)." (V:378 f., emphasis mine)²¹⁰

Although to my knowledge no argument is given for this inference, we might reconstruct the argument as follows: the first premise states that natural purposes can only be described teleologically. According to the second premise, natural purposes are a 'product of nature' (V:378). Thirdly, nature as the sum of all possible

²⁰⁸See Goy (2017, pp. 112–121) for an extensive commentary on §§74–5 in line with my emphasis on the threat of theology.

²⁰⁹Similarly, Toepfer (2011b, p. 117) believes that "reflective judgement establishes a certain class of objects".

²¹⁰Cf. V:380 f., 391, 398, 414.

objects of experience must be ordered in a systematic way, i. e. in accordance with one principle. Fourthly, both teleological and mechanical explanations are universally valid and based on mutually exclusive principles. Therefore, nature can be either described in a teleological or explained in a mechanical way, but not in both ways. Having said that, we could reformulate the conflict as follows, drawing again on the constitutive translation for reasons of illustration:

I.
$$\forall x(Gx \to Mx)$$

II.
$$\forall x (Gx \to (Tx \land \neg Mx))$$

At this point two conflicting principles for the explanation of the generation of all material objects are available. This is not a place to rest. Since the "example that nature gives in its organic products" (V:379) appears completely contingent within a mechanical framework and thus is the "main proof of the contingency of the whole of nature" (V:398), the only way out, Kant suggests, is to give primacy to the teleological description. This is, in nuce, what is argued for in §75. Yet Kant acknowledges at the same time that teleology can only be brought to completion in "a theology" (V:399), since the account of a purpose in nature eventually presupposes an intelligent supersensible designer of nature. That consequence resembles the theistic position, presented in §§72–3, stating that the ground of nature is a transcendent and intelligent being. What Kant finds lacking in such a dogmatic theistic account is a *critical* perspective, considering the "constitution and limits of our cognitive capacities" (V:395) without determining the object. I think it is crucial to acknowledge this theological threat in order to understand the role of the subsequent paragraphs, §§76–77, "which would certainly deserve to be elaborated in detail in transcendental philosophy" (V:401).²¹¹

²¹¹Interestingly, for some readers there is no theological threat. Trendelenburg (1870, p. 54) states that, regardless of the transcendental principle of purposiveness, the world itself is, ontologically speaking, already filled by purposes ("innewohnende gestaltende Seele der Dinge" (ibid., p. 51)). As is explicitly stated in Trendelenburg (ibid., 48 f.), this is another branch of the famous gap [Lücke] between real and transcendental time and space. According to this criticism, Kant neglected an alternative in the Aesthetics of the KrV, namely that space and time are both the forms of intuition and features of the objects in themselves, therefore

Reconciliation of the Antinomy

After §75 concluded that we have to accept a supersensible designer in order to parse natural purposes due to their contingency within a mechanistic framework (cf. 2.3.1), §76 and §77 present the final moves towards the reconciliation of the antinomy. Here a long-standing tradition of comparing humans with other intelligent beings, e. g. gods, machines or animals, is adopted to elucidate the specifics of the cognitive and practical features of one of the parties. Such a comparison is successful if certain features of the behaviour or knowledge of the other party can – by empirical inquiry or by thought experiment – be clearly distinguished from that of human agents. Such a comparison will turn out to be helpful to determine the "use, extension and the limits" (IV:276) of our cognitive faculty. It is worth pointing out that both §21 of the B-Deduction and §76 are titled Note, Anmerkung. In both cases Kant refers to the 'peculiarity' [Eigentümlichkeit] (B164) of our cognitive faculty in order to progress within the argument.

The task of §76 is primarily to recall a familiar distinction between our (epistemically fallible²¹²) understanding and an intellectual intuition as well as between our sense-dependent (ethically fallible) will and a holy will.²¹³ These are two aspects of an original supernatural productive intellect. It is crucial for each comparison that the alternative intellects are independent, while our faculties are sense-dependent. Moreover, we are able to make distinctions a higher mind is not able to make.²¹⁴ At a later point, in 4.5, I will discuss the intellectual intuition and the holy will to go deeper into the particular set-up of our mind, but at the moment I am not relying on those accounts and prefer to discuss another so-called 'limiting concept', namely the *intuitive understanding*.

transcendental idealism is not mandatory. The same argument applies to the transcendental principle of purposiveness: "es beweist [...] nicht, dass der Zweck in der Natur keine Wirklichkeit habe. Sein subjektiver Ursprung zeugt gar nicht gegen seine objektive Bedeutung." (ibid., p. 49) It is obvious that Trendelenburg's argument is, ontologically speaking, more demanding, therefore the burden of proof is on his side.

²¹²Cf. Pollok 2014, p. 525.

 $^{^{213}\}mathrm{See}$ Förster (2012, pp. 154–60) for a thorough analysis of these contrasts. $^{214}\mathrm{Cf.}$ V:418, Quarfood (2011, 145 n.).

Among interpreters there has been a tendency to align this newly introduced alternative mind with one or all of the available limiting concepts. ²¹⁵ I suggest, in contrast, that we take the distinction seriously as they emphasise different aspects of the divine mind and, as a result, different aspects of our mind. Surely, one could imagine an omnipotent, eternal, holy and wise God, but the results of any comparison gain a more differentiated and precise character if the aspects of that divine intellect are specified, as Kant does in §76. It is a means within transcendental philosophy to specify the particular constitution of our various faculties. This will help to notice, anmerken (V:406), the contingent constitution of our mind.

While the power of judgement subsumes individual given representations under analytic-general concepts, the intuitive understanding moves in the opposite direction, namely from the "synthetic-general" [Synthetisch-Allgemeinen, V:407] to the particular, from the whole to its parts, such that the relations between the parts do not appear "contingent", like in our case of natural purposes, but "only as the effect of the concurrent moving forces of the parts" (V:407). 216 All features of the objects are

Aware of the distinctions, Stang (2016, section 10.2) and Winegar (2017) have argued that this distinction is not relevant, since they are all instances of God's mind. But first of all, it is not clear if that is actually the case; one could think of an intellectual intuition that can only provide 'analytical-general' representations (cf. V:407), such that natural purposes cannot be designed. Secondly, such a merger would undermine the particular opposition with the RPJ and therefore not help to reconcile the antinomy, since the reconciliation demands the distinction between the intuitive understanding and the intellectual intuition.

²¹⁵ For instance, McLaughlin (1990, p. 169), Düsing (2013), Ginsborg (2004). Düsing (1968, pp. 66–74) even writes an extensive section on the intuitive understanding, but is not able to mark the distinction with an intellectual intuition; in fact he even misses the distinction between a holy will and intellectual intuition, cf. Düsing (ibid., p. 107). Moreover, Lord (2011, p. 98) falsely identifies the intuitive understanding with an intellectual intuition: "For the intuitive understanding, the activity of thinking is the genesis of the being of what is thought." In contrast, the difference is demarcated in Förster (2002), Förster (2012) and further developed in Haag (2012). Quarfood (2011, pp. 150–2) agrees that there is a distinction, but doubts whether the strict graduation suggested by Förster is available in Kant. Both branches of the divine mind, he argues, lack the distinction between sensibility and intellect.

 $^{^{216}\}mathrm{Cf.}$ V:408. The following citation from the $MetL_1$ can help us to elaborate

immediately clear and adequate for this alternative intellect; she can immediately parse all of the parts intuitively at once, not by analysis of and reflection on the parts of the objects, as we depend on, but by an intuitive grasp of the whole.²¹⁷

For us "it must certainly [freilich] be contingent what and how different might be the particular that can be given to it in nature and brought under [the subject's, T. M.] concepts" (V:406, translation modified). Our relation to objects is basically discursive and thus depends on general abstract features whereas the intuitive understanding is intuitive and therefore does not leave out singular (non-repeatable) features in the act of comparing, reflecting and abstracting.²¹⁸ For good reasons, this account of the intuitive understanding has been related to Spinoza's scientia intuitiva, which is the ability to 'see' the essence of an individual

this comparison between the discursive and the intuitive mind in regard of mereology and mode of representation: "Die Ursprünglichkeit des intellectus originarii ist: daß er alle Theile erkennt aus dem Ganzen, und nicht das Ganze aus den Theilen; denn er erkennt alles und determinirt limitando alle Dinge. Die Erkenntnisse des intellectus originiarii sind nicht Begriffe, sondern Ideen. Begriffe sind allgemeine discursive Vorstellungen und allgemeine Merkmale der Dinge. Zu allen Begriffen wird Abstraction erfordert; das ist aber ein Mangel; wir schränken also unsere Vorstellungen ein, und dadurch erhalten wir klare Begriffe und Vorstellungen. Da aber der intellectus originarius illimitirt ist; so kann er nicht auf Einschränkung und Abstraction beruhen. Da der menschliche Verstand etwas durch allgemeine Merkmale erkennt, sie unter Begriffe bringt, und vermittelst einer Regel erkennt; so ist der menschliche Verstand discursiv, der intellectus originarius aber intuitiv. Er erkennt nicht per conceptus, sondern per intuitus. Denn weil der ursprüngliche Verstand nicht an Schranken gebunden ist, die discursive Kenntniß aber eine Einschränkung ist; so ist die göttliche Erkenntniß eine unmittelbare Erkenntniß. Der ursprüngliche Verstand ist also anschauend." (XXVIII:328 f.)

²¹⁷Cf. V:407 and XXVIII:328 f. (216 on page 106) for this characterisation. Cf. also the following remark from V-Th/Pölitz: "[d]ie Attention, die Abstraktion, die Reflexion, die Comparation sind alles nur Hülfsmittel eines diskursiven Verstandes; sie können also von Gott nicht gedacht werden; denn Gott hat keine conceptus, sondern lauter intuitus, wodurch sein Verstand alle Gegenstände, wie sie an sich selbst sind, unmittelbar erkennet; dahingegen alle Begriffe nur mittelbar sind, indem sie aus allgemeinen Merkmalen entstehen." (XXVIII:1053) In the Principiorum primorum cognitionis metaphysicae nova dilucidatio (1755) (PND) it is stated explicitly that God, unlike the human mind, does not infer and analyse, cf. II:391, 405.

²¹⁸Cf. 7.3 for a more elaborate account of this 'logical act'. See the 4th chapter on Discursiveness for a more elaborated account of the constitution of our faculty, starting with the characterisation currently in focus.

object immediately in an adequate way. Apart from Spinoza, the intuitive insight was the highest kind of knowledge for many of the early modern thinkers, as I will elaborate in 4.3.²¹⁹

Based on the above presentation, it follows that the intuitive understanding will parse a whole living body at once, including all of the relations between the parts. For her it is true that the "whole contains the ground of the possibility of its form and of the connection of parts that belongs to that." (V:408) Therefore, the parts are already holistically contained in the totality. In contrast, we – as the sense-dependent discursive beings we are - can consider the whole [das Ganze] only as a result of the concurring moving forces of the parts, being cause and effect of each other at the same time.²²⁰ Hence, we must introduce inner purposive causalities and a purpose, leading to the theological threat mentioned before. Since the intuitive understanding does not demand the presupposition of a purpose, she therefore does not face that threat.²²¹ If we lacked the conceptual means to distinguish between an intellectual intuition, i. e. a real ground of nature, and an intuitive understanding, it would not be possible to appreciate this conclusion.

Situation after §76

At this point we arrive once more at the standpoint of §75 with the advantage of having an argument in favour of the particular and contingent constitution of our mind. Hence the main conclusion from this famous intermezzo is that our purposive description of natural purposes must not accord with the actual constitution of the object, since other possible intellects do *not* have to presuppose a purposive order. Before accepting the theological implications of the purposes given in nature, as §75 stops short of doing, the comparison with the intuitive understanding

²¹⁹Cassirer (1921, pp. 299–302) offers a brief history of the intuitive understanding, starting with Plotinus and granting a key role to Spinoza. Förster (2012, pp. 106–8) also ascribes a key role to Spinoza. For a characterisation of the *scientia intuitiva* along above lines, cf. Spinoza (2010, II40p2).

 $^{^{220}}$ Cf. V:407.

²²¹In contrast, see Allison (1992, 38 f.).

shows that this is a "peculiar characteristic of the human understanding" (V:405), as the title of §77 states, and not e. g. of an intuitive understanding. This comparison blocks the looming theological threat and leads the way to the reconciliation of the antinomy, emphasising our contribution to the representation of natural purposes, such that our teleological judgements are merely reflective and subjective. Note that this discussion favours my main argument, stating that we are dealing with a work of transcendental philosophy.

As a reconciliation of a *seeming* conflict, this does not discredit the first mechanical maxim. Because of the supersensible designer of nature invoked by the principle of purposiveness, it is possible to assume the "unifiability" [Vereinbarkeit, V:412] of the teleological and mechanical principle, as §78 states most clearly.²²² This allows us to complete the reconciliation, namely by giving priority to the regulative teleological order without giving up the first maxim of the determining power of judgement, stating that we should explain the generation of objects according to mechanical laws, since without mechanical explanation "there can be no proper cognition of nature." (V:387) Hence, to save the unity of experience, the objects of a mechanical explanation of nature must be subordinated under its teleological order, very much like I have tried to illustrate at the end of 2.3.2. We must presuppose an internal purposiveness as a guiding thread [Leitfaden], or maxim, in order to gain knowledge of these objects.

According to the main claim in this chapter, both parts of the third Critique are, more than anything else, necessary elements to establish the RPJ. The Antinomy is mainly occupied with the theological consequence of certain "examples that nature [...] gives" (V:379), namely natural purposes, forcing us to leave the mechanical mode of explanation behind to appreciate their inner purposive causality. From the perspective of transcendental philosophy that is crucial in order to explore the necessary conditions under which we reflect on nature; the KaU did not have any occasion to consider the status of the evoked supersensible

²²²Cf. "the above [teleological, T. M.] maxim leads to the necessity of a unification of both principles in the judging of things as natural ends, but not in order to put one wholly or partly in place of the other." (V:414)
²²³On the impossibility of gaining knowledge of natural purposes, cf. 2.3.1.

ground of nature while the Antinomy in the Dialectics of the KtU does address that issue. While we cannot acknowledge natural purposes in nature without implying a transcendent ground of nature, we must remember that this is a reflective rather than a determining judgement and that the evoked ground of nature can unify the teleological and mechanical principles such that both modes of description may be applied. Only subjectively may we assume the existence of a supersensible intelligent being for the sake of the use of our power of judgement reflecting on nature's purposes. 224

It is easy to misunderstand the teleological judgement as a determination of natural purposes. If we were to determine an object as a natural purpose, we would be implying a supernatural intellect which is, in some way, the cause of that object. But the presupposition of a supernatural architect of nature would transcend the carefully drawn limits of nature in the first *Critique*'s Dialectics, which prevent dogmatic metaphysics from ascribing reality to supersensible objects for explanatory theoretical purposes. ²²⁵ Therefore, the determination of objects as natural purposes is not a feasible option, at least not as long as we suppose a continuity within the critical works. Rather, it is important to emphasise the particular constitution of our mind in general and the reflective mode of the RPJ in particular.

2.4 Conclusion

If we are arguing that the third Critique is first and foremost a contribution to transcendental philosophy, it seems natural to start with the Introduction(s) where the faculty and its principle are discussed extensively in relation to both the former critical works and the subsequent two parts of the KU. It is tempting, moreover, to consider the following parts on Aesthetics and Teleology as exemplifications of the way the initial epistemological faculty is being used. Yet such a route leaves out the significance that both the KaU and the KtU have for Kant's transcendental undertaking, undermining my intention to read the work as a

²²⁴Cf. V:399 f.

²²⁵Cf. e. g. V:389.

111

unity. Therefore I have emphasised in this chapter the *significant* contribution of these parts for the overall argument and, moreover, showed how the arguments are embedded in the transcendental project.

While other philosophers have asked which criteria must be fulfilled for an object to be beautiful, the transcendental philosopher asks under which conditions we can judge the beauty of objects, demanding universal agreement with a subjective non-determining judgement ("x is beautiful"). Unlike a judgement about the merely agreeable, we saw that a judgement of taste involves the contribution of the RPJ, reflecting on the free play of the faculties such that the principle of purposiveness is revealed and it truly seems like nature has been designed for the particular character of our mind. This principle is contributed a priori by the RPJ rather than being entailed in the constitution of the object we judge.

Just like beautifully appearing objects, natural purposes are an instantiation of nature's purposiveness 'in nature'. While some might take the Introduction as a discussion of the regulative role of the RPJ for heuristic means²²⁶, my take is that these instantiations confront us with purposive objects in nature, demanding another response. Again, we would not be able to judge them without the principle of purposiveness guiding our RPJ, ascribing to the object an inner mutual causal dependence of the parts and the whole at the same time. I have been eager to stress that in this case, as in the case of aesthetic judgement, we are not dealing with a determination of the object. That "x is beautiful" or that "x is a natural purpose" is a reflective judgement, namely one that does not subsume x under a predicate in a determining judgement, but rather expresses a state of the subject in relation to the object. The reflective status of these kind of judgements has been stressed throughout this chapter, confirming the dependency on the contribution of the RPJ.

While the judgement of taste reveals the principle and the presupposition of a shared constitution of the mind, the KtU contributes to the overall argument, since it prompts Kant to clarify the status of the supersensible ground of nature. This ground of nature is

²²⁶For a different treatment, cf. chapter 5.

evoked if we judge the inner organisation of natural purposes teleologically. The Antinomy of the KtU explicates most clearly how judgements about the teleological order of natural purposes pave the way for theology. While this is unavoidable due to the particular contingent constitution of our discursive sense-dependent mind, it is important to recall the reflective (non-determining) status of the judgement which, moreover, allows us to assume a supersensible creator unifying the teleological and mechanical principles such that the two principles do not conflict. In both cases it is not so much an isolated theory as an application of the RPJ, contributing to the overall argument of the third Critique.

${f Part~II}$ Realm of Experience

Chapter 3

The Account of Nature in Categorial and Empirical Respect

3.1 Orientation

Like the next chapter on Discursiveness, this chapter offers an elaboration of a central concept in the third Critique that gets adopted in the KU from the previous critical works. This is important, since it is presupposed yet not discussed explicitly in the KU, even though it is crucial to appreciate the transcendental aspect of the KU. Hence, I will provide discussions of these terms in this second part of the study.

In the current chapter the account under investigation is nature, the sum total of all lawfully organised objects of cognition. This account is highly relevant for the third Critique, as the epigraph at the outset of this inquiry indicates, yet the account and its distinctions are hardly elaborated within the KU. Furthermore, the

account of nature is crucial to avoid the ontological assumption that we impose a certain structure on objects. Rather, Kant considers our mind's a priori contribution to our relation to objects of experience from a critical perspective

The relevance of this account is probably stated most clearly in the reconciliation of the antinomy in the KtU, which was discussed in the second half of the previous chapter. The introduction of a supernatural creator for the teleological description of the generation of natural purposes changes the scope of the maxim from particular purposes in nature to nature as the sum total of all objects. Hence what is true for natural purposes is true for all objects of experience; we should presuppose their purposive order while searching for mechanical explanations as much as possible. In the KaU, similarly, objects of our judgements of taste reveal our a priori presupposition concerning nature's purposiveness. Not just the particular objects we consider to be beautiful, but nature, namely the sum of all possible objects of experience, has been organised in a way that is in concert with the constitution of our mind. All of this has been elaborated in the previous chapter, mostly in 2.3.3.

The formal account of nature, namely the lawfulness of the objects of experience, demands the lawful organisation of nature according to a universal causal explanation. This normative constraint of the account of nature plays a crucial role in the KU, most notably in the KtU's antinomy. The so-called material account of nature refers to the objects of experience, thereby securing the *immanence* of nature. This is crucial in light of the transgressive aspirations of the account of purposiveness, which constitutes an ideal concept beyond the bounds of sense if no corrective by transcendental idealism is built in. These two accounts and their interdependent relation will be discussed in 3.2 and 3.3. Moreover, whereas from the KU's perspective, the first Critiquefocusses on the most general account of an object of cognition, the third Critique considers the possibility of the (infinite) diversity of particular laws of nature. To prepare this distinction, which is rendered problematic in the Deduction (cf. chapter 5), I will argue in 3.4 for an important distinction between a categorial and an empirical level of nature.

3.2 Two Accounts of Nature

In the Prolegomena zu einer jeden künftigen Metaphysik (1783) (Prolegomena) we can read that an explanation of the possibility of nature is nothing less than "the highest point of transcendental philosophy" (IV:318), marking both the limit and completion of transcendental philosophy. This might be a remarkable statement for a reader of the first Critique. Although the official aim of the *Prolegomena* is to illuminate a philosophical study whose revolutionary potential was not acknowledged by Kant's contemporaries, prima facie the concept of nature does not seem to be at the centre of the first Critique at all. It is not before the end of the transcendental Deduction that Kant introduces the concept and draws a further specification between a formal and a material aspect.²²⁷ Further on in the book, the concept hardly plays a significant role, except in the famous contradiction between the causal determination by previous events in nature and the spontaneity of freedom in the third Antinomy. Whereas freedom is fully spontaneous, nature is fully determined by previous events according to mechanical laws.

From the perspective of the KU the statement in the Prolegomena seems less remarkable. It is worth pointing out that Kant describes nature and freedom in the beginning of the Introduction to the KU as two domains [Gebiete, ditio] for which, respectively, the concepts of nature and the concept of freedom are $lawgiving.^{228}$ A priori concepts, like the schematised categories and the categorical imperative, are constitutive laws of these strictly separated domains. They are, in other words, the necessary conditions of the possibility of nature and of freedom. Without these constitutive concepts these domains would not be possible. Hence in light of this remark it does not seem particularly abstruse to state that the possibility of nature is the highest point of transcendental philosophy if we take into account that this statement was made before the discovery of the synthetic principle a priori of freedom, i. e. the categorical imperative. If we are in the

 $^{^{227}\}mathrm{More}$ specifically, the concept is introduced at the end of the transcendental Deduction from below and from above in the A-Deduction as well as at the end of the B-Deduction, respectively: A114, A125–8, B159, B164 f. $^{228}\mathrm{Cf.~V:}174.$

position to explain the possibility of nature we can also lay out the possibility of objects of experience. These objects must obey the necessary a priori laws of the understanding, otherwise they cannot be objects of experience for us.

Lawgiver of Nature

From the standpoint of the KU, the task of the previous *Critiques* has been primarily to inquire into how a priori synthetic principles are possible.²²⁹ In other words, this claim is supported by the following quote from the Preface to the KU where the task of the KrV is put in terms of nature:

"The former [KrV, T. M.] pertains solely to our faculty for cognising things a priori, and thus concerns itself only with the faculty of cognition, excluding the feeling of pleasure and displeasure and the faculty of desire [...] Thus the critique, which looks to the faculties of cognition as a whole, concerned with the contribution that each of the other faculties might profess to make to the bare possession of cognition from its own source, is left with nothing but what the understanding prescribes a priori as law for nature, as the sum of appearances (whose form is likewise given a priori)" (V:167, last emphasis mine). 230

Following the above recapitulation of the aim of the KrV, the discovery of the a priori principles of the understanding is the central result of that work. Whether this is an adequate account goes beyond the limits of my project – for reasons of charity I do adopt the perspective of the KU. Yet it is worth pointing out that the concept of nature is mentioned explicitly in the quote as the domain where the understanding is legislative. Here, as elsewhere, the concept of nature refers to the possible objects of experience and to the lawful organisation of these objects. In other words, nature is the domain to which the understanding prescribes the laws a priori: "nature and possible experience are one and the same [einerlei]" (IV:320), i. e. nature and possible experience are

²²⁹"How are synthetic principles a priori possible" (IV:276) is the famous formulation of the critical question initially proclaimed in the *Prolegomena* and returning in the B-version of the KrV, KpV and the KU.

²³⁰Cf. XX:208 f. (cited on page 131).

coextensive.²³¹ Thus, being the highest point of transcendental philosophy, nature is not a given domain of objects out there, but refers to the possible objects we can know, considering the contribution of our mind to those objects.

Up to this point I have given a bit of textual support to believe that the concept is imported from the first Critique and refers to the result of the first Critique. This helps to indicate the continuity within the critical project and the contribution of the KU to that project. Furthermore, the number of appearances of 'nature' and related accounts in the KU is significant in comparison to other critical works, except for usual suspects like the MAN and the shorter writings on the human race (e. g. UGTP).²³² This is just an indication of its importance and does not say anything about its status in the KU.

In respect to this status, I will, for the moment, only note that the concept both indicates the *immanence* of the realm of experience and its *lawfulness* as a normative constraint. These roles correspond to the material and formal account respectively, which are being used in a fairly consistent way over the course of the critical period. The formal account (nature_F) refers to the lawfulness of the objects, the material account (nature_M) refers to the existence of the sum total of all objects of experience. 233 Even

²³¹Thanks to Stefan Färber for forcing me to specify this point.

²³²I have selected a few relevant nature-derived terms that appear often in the KU: "Naturganze" (= Welt, V:381, 391, 409, 414); "Naturdinge" (pl., V:185, 195, 251, 280, 367 f., 377, 379, 393, 398, 400, 428, 432, 437, 439, 461, 465, 477); "Naturen" (pl., V:183, 418); "Naturerkenntnis" (V:378, 387, 390, 410); "Naturerklärung" (V:391, 423); "Naturgesetze(n)" (sing., pl., V:180, 183, 187, 194 f., 370 f., 383 386, 388, 398, 400, 407, 408, 413, 462, 485); "Naturkenntniβ" (V:323, 447, 476, 482); "Naturbegriff" (sing., pl., = Kategorie, V:171–176, 178 f., 184, 187, 192, 195–7, 456, 474–6, 478 f.); "Naturwesen" (V:183, 261, 367, 371, 378, 381, 410, 413, 426 f., 429, 435).

Roser and Mohrs (1993, pp. 391–404) lists about 760 references to nature (\pm 2.4 references/page) for the KU (without the EEKU) and about 330 references (\pm 0.60 references/page) for the KrV (cf. ibid., pp. 379–385). Of course, these philological statistics are just an indication of the term's relevance and are not supposed to replace philosophical arguments.

²³³Here is an *incomplete list of references* of the two accounts of nature restricted to the main works from the critical period (except for the KU). Nature_F is defined in the following passages: A126 f., B165, A216/B263, A418 f./B446 n., A444/B472-A449/B477, IV:296, 318, 387 f., 421, 431,

though the two terms are not explicitly labelled that way in the KU, their two descriptions and corresponding roles are clearly at work in the overall argument. The following discussion of these two accounts and their relationship will help to allocate those roles.

My examination will be guided by the question of how the material and the formal aspect of this concept relate to each other. I will argue that these are interdependent rather than independent compatible accounts, since they are two aspects of the same concept and therefore mutual dependent. The challenge of a successful interpretation is to do justice to both aspects of this single concept, such that the laws make sense only in relation to the object and the object can be an object for us only if it is ordered according to these a priori laws. This is, as I believe, important for a successful interpretation of the KU, since Kant uses the two senses of the account of nature independently without labelling them accordingly. Moreover, both the lawfulness and the immanence of nature are crucial constraints of the principle of purposiveness; as we saw most explicitly in the Antinomy in the KtU, lawfulness does not allow for the contingency of nature, while immanence does not allow supersensible objects in nature. 234

Formal Account of Nature

Usually, nature in its formal respect is described as the lawfulness, $Gesetzm\ddot{a}\beta igkeit$, of all objects of experience.²³⁵ To understand

 $^{439,\ 446,\ 452\ \}mathrm{f.},\ 462,\ 467.\ \mathrm{Nature_M}$ is defined in the following passages: Bxix, A114, B163, A419/B446 n., A846/B874; IV:295, 318; V:43, 155, 169, 173 f., 179, 257, 291, 359, 384, 386, 416, 464, 476; XX:208. "Nature in general" [Natur überhaupt], in contrast to empirical nature, is mentioned here: B164 f., IV:295, 318, V:182 f., 212, 280, 284, 299, 377, 382, 415, 438. Passages where nature has not been used in that technical sense, like the "nature of reason" (Avii) or the "nature of our reason" (A669/B697), are not taken into consideration. For further references in the KU see the previous note.

²³⁴Cf. Zuckert (2007, p. 61).

²³⁵Cf. "The formal in nature [...] in this narrower meaning is therefore the conformity [Gesetzmäβigkeit] to law of all objects of experience, and, insofar as this conformity is cognised a priori, the necessary conformity to law of those objects." (IV:296). Thöle (1991, p. 6) describes this as the

what that means I will consider Kant's elaboration in grammatical terms. When we refer to the nature of something, we use the concept adjectively, i. e. formally. For instance, we could say that the nature of matter is extended. When we say "matter is extended", the adjective ('extended') is synonymous to the nature of the subject ('matter'). At the very entrance of the MAN we can also read that "the nature of x", i. e. nature, refers to the principle that logically precedes everything that is part of being x, such that all features of x remain together in a coherent way. Hence, nature used adjectively, i. e. formally, is, according to the MAN, "the first inner principle of all that belongs to the existence of a thing" (IV:467). 236 Following this dense elucidation, lawfulness refers to the causal principle that determines the behaviour of a specific kind of object. 237 This is confirmed in the KrV und the MAN respectively:

"Nature taken adjectivally (formaliter) signifies the connection of determinations of a thing in accordance with an inner principle of causality." (A418/B446 n.)

"Since the word nature already carries with it the concept of laws, and the latter carries with it the concept of the *necessity* of all determinations of a thing belonging to its existence[...]" (IV:468²³⁸).

Thus, if we apply the account of nature formally, we refer to the 'inner' principle preceding all determinations of an object or a set of objects. Of course, Kant is very aware that our mind consists of a receptive and a spontaneous stem such that we, unlike an intellectual intuition, cannot cause the existence of objects through self-awareness. Therefore, we cannot gain full insight into the nature of objects, as I will argue in 4.5. Yet it is a common practice in transcendental philosophy to ignore empirical features of representations in order to discover the a priori contributions of our mind to the relation to objects. In

[`]Gesetzesthese'.

²³⁶In line with my interpretation, Pollok (2001, p. 47) comments that 'inner' must be understood in opposition to 'external', like *external* forces determining the course of the object.

²³⁷Similarly, Pollok (ibid., p. 45) interprets inner principle here as 'class-constructing kinds of lawfulness'.

²³⁸Cf. V:180.

the current case we can leave aside the specific 'inner principles' of all kinds and still suggest that objects behave in accordance with laws, like the suffix - $m\ddot{a}\beta ig$ expresses, simply because they are determined by principles. Whatever these principles might be, we are allowed to suppose a lawful order that constitutes the various classes of objects. Therefore, nature refers primarily to the lawful order of objects of experience, leaving aside the specific content of those laws.

Material Account of Nature

Usually, nature in its material aspect is described as the sum total ($Inbegriff^{239}$) of all objects insofar as they are objects of our experience.²⁴⁰ Again, I would like to highlight the grammatical aspect, expressed in the KrV, in order to explain how Kant arrives at this account:

"Conversely, by nature taken substantively (materialiter) is understood the sum total of appearances insofar as these are in thoroughgoing connection through an inner principle of causality." (A418/B446 n.)

When we refer to a specific set of phenomena, the concept of nature is used substantively, i. e. materially. For instance, if we judge that all human beings are rational animals, the subject in the judgement refers to the set of all human beings. It is particularly important for our stance that this set of objects can only be discriminated from other kind of objects due to their common principle, namely the nature of x (nature_F). The citation states that interdependence clearly. In our example the set of all humans is distinguished from other objects due to their common principle, namely because they belong to the class of rational animals. Thus, nature_F is necessarily presupposed in order to deploy nature_M.

²³⁹I will follow this standard translation. It must be noted though, that Inbegriff might also be translated as 'archetype' at the highest most general level of an object in general [überhaupt], since these concepts are intentionally and extensionally identical. Yet on a lower, more concrete level this translation fails.

²⁴⁰Cf. "Nature considered materialiter is the sum total of all objects of experience." (IV:295). See note 233 on page 119 for further references.

As above, we are not interested in the domain of this or that kind of object: lawfulness can be ascribed to an object regardless of the inner principle of an object. If we stay on the same general level, the set of objects depends on – or in terms of the *Prolegomena* is 'derived' [abgeleitet, IV:319] from – the a priori principles of possible objects of experience. The lawgiver of nature does not gain the laws through experience, but prescribes them a priori to the content of the representations as the conditions of the possibility of experience.²⁴¹ Therefore, our initial account of nature_M is the sum total of all objects of experience, namely all possible objects that accord with the conditions of the possibility of experience. As we will explore below in more detail, this concept exhibits the extent [Umfanq] and the limits of cognition, representing nature's *immanence*. Opposed to 'transcendence', 'immanence' refers here to the restriction to possible objects of experience in space and time.²⁴² Wherever our mind may lead us to and whatever may affect our senses, what can be an actual object of cognition cannot transgress the extension of possible objects of experience.

As I would like to argue in the following, the accounts of nature_F and nature_M go hand in hand, as we cannot distinguish a kind of object without some kind of principle to distinguish them. It is also true that deploying a principle of x, which lacks a domain of objects belonging to that kind, x would be meaningless and empty.

3.3 Hylomorphic Model of Nature

Although both accounts of nature appear often and in a consistent manner throughout the critical works, their relation is left open. Moreover, both accounts are often applied independently of each other in the KU and elsewhere; therefore it is important to inquire their relationship. Based on the determination of both concepts above, we can state that referring to lawfulness (nature_F) implies reference to the lawfulness of a kind of object; referring to the

²⁴¹Cf. "the understanding does not draw its (a priori) laws from nature, but prescribes them to it" (IV:320).

 $^{^{242}}$ Cf. A295 f./B352 f., A327/B384.

sum total of a kind of object (nature_M) implies the reference to their lawfulness. In concert with the literature I will refer to this interdependence as a hylomorphic reading. Below I will argue why I believe that these are two interdependent accounts of the very same concept. Still, this is not to say that the distinction between the formal and material aspect of nature is obsolete, like Ferrarin (2015, 116 f.) suggests. The distinction obviously refers to two different aspects of the intentional relation to an object.

First of all, the above discussion of the adjectival and substantive account revealed their interdependency insofar as subject and adjective presuppose each other. The quoted description of $\operatorname{nature}_{M}$ on page 122 explicitly mentions the dependency on $\operatorname{nature}_{F}$: we cannot distinguish a kind of object from other kinds without applying a criterion. On the other hand, the formulation "nature of x" (cf. 3.2) makes it clear that there must be an x whose principle is determined. Otherwise, such a determination would be senseless.

Furthermore, it is obvious that both accounts stress aspects of the same generic concept, namely nature; according to Kant "every division presupposes a concept that is to be divided." (A290/B346) Having said that, it must be noted that Kant's only general definition of the account of nature entails both lawfulness and possible objects: "Nature is the existence of things, insofar as that existence is determined according to universal laws" (IV:294). As long as both accounts emphasise one particular aspect of this generic concept, they must implicitly entail the other aspect as well.

²⁴³Cf. Falkenburg (2000, 196 f.), Pollok (2006, p. 254), Pollok (2014, p. 511), Engstrom (2006, p. 21).

²⁴⁴One argument Ferrarin (2015, p. 116) brings is that form and matter can exchange roles: "For example, pure concepts, as the understanding's forms, can be the matter on which the superior forms, i. e. ideas, are active." This seems correct: it actually supports the view that we can discriminate between form and matter without giving up their interdependent relation – undermining Ferrarin's own position.

²⁴⁵In descriptions of nature the modal status of the objects varies between real and possible. For an example of the latter, cf. the passage on page 125. Since we are inquiring into the conditions of the possibility of our intentional relation to objects, this variability of the modal status has no relevant impact.

Moreover, this hylomorphic reading finds support if the concept is considered within the light of transcendental philosophy of which it represents the highest point (cf. 3.2). In a word, if transcendental philosophy is concerned with the necessary conditions of the possibility of an object in general, nature_M exhibits this object in general whereas nature_F expresses the principle behind this object in general. This is confirmed by Kant's distinction between general and transcendental logic. General logic focusses exclusively on the logical 'form of thinking in general', leaving out any kind of relation [Beziehung] to objects.²⁴⁶ Transcendental logic, on the other hand, does not leave out all content of cognition, but is concerned with the content of cognition insofar as it depends on "the source [Ursprung] of our cognition of objects" (A55/B80).

As has been argued convincingly by Tolley (2012), this is not to say that general logic is more general than transcendental logic, but that both brands of logic discuss different aspects of cognition. Note that content is thus already expressed in terms of an intentional relation to the object: a representation has content if it is about an object.²⁴⁷ While transcendental logic is concerned with the content of cognition, it does not consider empirical qualifications, but merely the a priori contribution of our mind to the relation to objects of cognition. This is clearly stated in the following passage from the *Prolegomena*:

"We will therefore be concerned here only with experience and with the universal conditions of its possibility which are given a priori, and from there we will determine *nature* as the whole object of all possible experience." (IV:297, emphasis mine)

Hence, the general and a priori conditions under which we are able to experience objects are always related to the possible content of experience, very much in line with the stated interdependence. Furthermore, it follows that the laws of the understanding and the most general laws of nature cannot be distinguished as independent elements, but are necessarily related to possible objects

²⁴⁶Cf. A55/B80.

²⁴⁷The close connection between content and our relation to objects on a Kantian account is argued for in Land (2011, 199 ff.). See also A55/B79 and A58/B83.

of experience. At one point in the *Prolegomena* Kant even states, famously, that "the principles of possible experience are, at the same time, universal laws of nature that can be cognised a priori." (IV:306) Since nature, "the whole [ganzen] object of possible experience" (IV:297), is made possible by these laws in the first place, it follows that nature must accord with these principles of experience. Accordingly, Kant states elsewhere that the a priori conditions of possible experience in general are at the same time conditions of the possibility of objects of experience²⁴⁸.

Matter and Form

Having offered my argument for the interdependence of nature_M and nature_F, I will now turn to a possible counterargument. The a priori status of the principles of the understanding might give rise to an *undesired asymmetry*, according to which form is prior to matter. This is most forcefully suggested by the Amphiboly. In the Amphiboly the familiar distinction between form and matter is discussed. Matter is that which is *determined* or *determinable* [Bestimmte or Bestimmbare]; form is the determining [Bestimmende].²⁴⁹ Thus, on the one hand we have an element, namely matter, in need of shape, organisation or order, on the other hand we have something that brings the matter into a certain order, namely form. This might give rise to the belief that form and matter stand in an asymmetrical relation.

To test that assumption we might want to direct our focus to Kant's discussion of Leibniz's relative account of time. The latter account claims that time (here: form) is a consequence of the order of the monads (here: matter)²⁵⁰; the temporal relations depend on the constitution of the monads, yet are not entailed intrinsically in the monads themselves. These temporal relations are a consequence of the constitution of the monads, such that matter is prior to and independent of the form. Leibniz states an asymmetrical relation between matter and form, giving priority to matter over form.

²⁴⁸Cf. A111.

²⁴⁹Cf. A20/B34, A50 f./B74 f., A86/B118, A266/B322.

²⁵⁰Cf. A267 f./B323 f., A275 f./B331 f., Leibniz (1989, pp. 213–24).

As elsewhere in the Amphiboly, Kant criticises Leibniz for changing the order of this conceptual pair. Whereas Leibniz believed that time is a secondary determination dependent on the basic monadic order, Kant believed that time as an a priori *form* of sensibility is a condition of the possibility of intuitions of objects in the first place. I do not want to go into the argumentative details of this famous theorem; rather I would like to point out that the relation between form and matter is the reverse of Leibniz's position, as Kant's order gives priority to form over matter.²⁵¹

Interdependence of Formal and Material Account

Here we arrive at what might look like a fundamental Kantian insight, namely that form is prior to matter. Both the formal conditions of sensibility and the categories are necessary conditions for the possibility of experience such that the form precedes and enables matter; there would be no matter at all if these a priori forms were not available in the sense described by the account of nature_M. Yet since we intend to state an interdependence between nature in its formal and nature in its material aspect, this is not a comfortable place to rest. Rather than considering the B-Deduction in the KrV (cf. 4.4), which offers the most compelling argument in favour of the interdependence of form and matter. I have decided to leave out this highly complex argument due to spatial restrictions²⁵² and consider the *concept* of something that is general enough to accord with all possible cognition of objects. The primary aim of the following discussion on this general account of something is to argue in favour of the interdependence of both accounts.

²⁵¹Longuenesse (2005, p. 227) reads this similarly, although I disagree with her conclusion: "Kant's main point is that this being so, the relation between matter and form of possibility is the reverse of what the rationalists (as he understands them) made it to be: from the rationalist standpoint, the matter of possibility is prior to its form, and this is why the rationalist supposes an unbounded reality (the intelligible 'matter' of all determinations of things) by limitation of which (= the 'form' of all possible things) every particular thing is thought. But from the critical standpoint, the form of possibility is prior to its matter."

²⁵²For a powerful account, cf. Longuenesse (1998). See also 4.4.

One might think here of what Kant calls an object in general, a Gegenstand überhaupt (A93/B125), "without qualification" and therefore independent of empirical content, determined by nothing but the categories. This is supposed to state the minimal concept of cognition displayed in the first Critique. But the problem with this notoriously difficult concept is that it can be thought, but not cognised, since a corresponding intuition is lacking. Therefore, it cannot be determined whether it is something or nothing. This concept could be nothing, because, lacking an intuition, the categories can be maximised beyond the bounds of sense, conflicting with the proclaimed immanence of nature. The second call the seco

Nevertheless, the above statement hints at the right answer, namely the term contradictory to 'nothing', that is: 'something' or "the undetermined thought of something in general" (A253/B309). Again, I cannot deny that the level of abstraction makes this concept hard to grasp, nevertheless we might suppose an intuition x as a placeholder that can be determined further, operating as "a correlate of the unity of apperception to the unity of manifold in the sensual intuition" (A249). Such a "transcendental object" (A250), Kant notes, is necessary for the object in general to refer to intuitions and therefore to refer to something rather than to nothing. It is, in other words, not a thing proper, since it is not given to our senses, but rather a determinable abstraction, i. e. a correlate that is open for determination by empirical concepts.

Here we arrive at the thinnest possible account of matter, therefore allowing the widest extension of possible objects. This goes well with the characterisation by Falkenburg (2000, p. 196) of nature_M as the most general possible term for cognitive or per-

²⁵³Tolley 2012, p. 423.

 $^{^{254}\}mathrm{Cf.}$ A290/B346, B346/A290. Conant (2012, 41 f. n.): "the Kantian locution stands for the notion of a bare abstract concept of a particular – a concept every actual concrete individual equally instantiates and none properly exemplifies."

²⁵⁵Cf. A290/B346.

²⁵⁶Cf. "If one abandons the senses, how will one make comprehensible that our categories (which would be the only remaining concepts for noumena) still signify anything at all, since for their relation to any object something more than merely the unity of thinking must be given, namely a possible intuition, to which they can be applied?" (A255/B311)

ceptual content, since the term has minimal content and, in consequence, the widest scope. Yet it does not follow that we have a priori insight into the existence, the *Dasein*, of these objects, since the latter cognition is dependent on the "confirmation by experience" (IV:296).²⁵⁷ A priori, only the *possibility* of something can be cognised. We cannot experience this philosophical construction, like we cannot experience the a priori laws of experience, but we can only confirm them in experience.²⁵⁸

Equipped with a thin account of an object of experience, we can return to the account of nature, referring to the sum total of all possible objects of experience. Rather than a given set of objects, as it might be taken, the account of nature refers to objects *insofar* as they accord with the general conditions of cognition, i. e. insofar as they are 'something'. Differently, if we would consider nature as a set of objects, we fall prey to the idea of *world*, namely the "undetermined totality of the synthesis of representations" (A481/B509). Such a totality, being the result of a regression, can only be thought by reason as a speculative transcendent idea, since it leaves the domain of the empirical behind. This is clearly stated by the following citation from the *Prolegomena*:

"Each individual experience is only a part of the whole sphere of the domain [Gebiet] of experience, but the absolute totality of all possible experience is not itself an experience, and yet is still a necessary problem for reason, for the mere representation of which reason needs concepts entirely different from the pure concepts of the understanding, whose use is only immanent, i. e., refers to experience insofar as such experience can be given" (IV:328, emphasis mine²⁵⁹).

²⁵⁷It is important to note that this is a noumenon in its negative use and a boundary concept (A255/B344 f.). This also stressed by Pollok (2014, 521 n.) whose paper was a major inspiration for this section. Cf. "Yet the existence of appearances cannot be cognised a priori" (A178/B221). And with striking similarity in the MAN: "existence cannot be presented [dargestellt] a priori in any intuition" (IV:469). Only the possibility can be thought a priori: "Now to cognize something a priori means to cognize it from its mere possibility." (IV:470)

 $^{^{258}\}mathrm{Cf.}$ IV:318 f.

²⁵⁹Cf. A417/B444, Düsing (1968, 24 f.).

The quotation makes a distinction between singular experiences, as members of the class of all experiences, and the whole of all possible experiences, das Ganze aller möglichen Erfahrung. In the latter case, the sum of all experiences in space and time is not available, since we are restricted to our local spatiotemporal coordinate, hic et nunc. As a result, reason will strive towards an infinite progression of the series of appearances.²⁶⁰ The 'problem for reason' can be avoided if nature_M is taken as the most general term for objects of experience, undetermined by empirical features and bound by the concepts of understanding as the most general features of objects, in accordance with the dependence on the account of nature_F stipulated previously. ²⁶¹ This reflects its role within transcendental philosophy, being concerned with the content of experience insofar as it is mind-dependent. Hence this account of something in general turns out to represent the interdependence of both accounts of nature.

3.4 Categorial and Empirical Levels of Nature

In the former section I have stipulated and solved a tension between nature in its formal and in its material sense. Being lawful and being a possible object of experience are two constraints that must be fulfilled in order to count as nature. We also saw that, for a transcendental inquiry, examining the necessary a priori conditions of experience, it is important to leave out the specific empirical qualification of the various kind of objects of experience. Following this line of thought, nature is the pure, i. e. non-empirical, aspect of an object of cognition that we cannot get to know in its purity through experience. 262 On my reading, the account of nature $_{\rm M}$ secures the immanence of nature while nature $_{\rm F}$ secures its lawfulness.

After the above discussion of the relation between $nature_M$ and $nature_F$, I would like to consider once more the relevance of the

²⁶⁰Cf. A409/B436.

²⁶¹Cf. A247/B303, A845 f./B873 f.

²⁶²Cf. IV:328, quoted on page 129.

account of nature for the KU. So far, nature_M has been taken as an expression of nature's immanence and nature_F as an expression of nature's lawfulness. ²⁶³ Both constraints play a crucial role in the KU: the principle of purposiveness, referring to a supernatural designer, tends to transcend the limits of nature while natural purposes challenge the universal validity of a mechanical explanation of nature. Since Kant, for whatever reason, does not explicitly rely in the KU on the distinction presented here, yet continually refers to the account of nature with increasing frequency in the KU^{264} , it is important to introduce the established terminology to identify and specify its application, as I have done over the course of the previous pages.

Empirical Level

At this point of our discussion I would like to draw attention to a further distinction at work in the KU. So far we have, for reasons given, discussed the laws of nature in general, "even without relation to any determinate object of experience, and thus undetermined with respect to the nature of this or that thing in the sensible world" (IV:469). The following citation from the EEKU stresses the normative purport of the KrV's account of nature and additionally introduces an empirical level amendable to regulation and reflection:

"We have seen in the Critique of Pure Reason that the whole of nature as the totality of all objects of experience constitutes a system in accordance with transcendental laws, namely those that the understanding itself gives a priori (for appearances, namely, insofar as they, combined in one consciousness, are to constitute experience). For that very reason, experience, in accordance with general as well as particular laws, insofar as it is considered objectively to be possible in general, must also constitute (in the idea) a system of possible empirical cognitions. For

²⁶³See V:179 f., the epigraph to this inquiry. Zuckert (2007, p. 61) identifies the same two aspects: "judgement [...] must be both responsive to nature as sensibly given, and responsible to the requirements of lawfullness concerning sensibly given nature as set by the categorial principles." Yet elsewhere, Zuckert (ibid., p. 54) calls the account of nature 'ambiguous'.
²⁶⁴The corresponding statistical data are presented in note 232 on page 119.

that is required by the unity of nature, in accordance with a principle of the thoroughgoing connection of everything contained in this totality of all appearances. To this extent experience in general in accordance with transcendental laws of the understanding is to be regarded as a system and not as a mere aggregate." (XX:208 f.²⁶⁵, emphases mine)

This citation supports the suggested continuity within the critical work. Clearly, the normative constraint, expressed by the account of nature_F, is adopted from the KrV, in line with the cited passage from V:167 on page 118. More importantly for our current focus, it presents an extension of the demand for lawfulness to a level that had been left out of the discussion so far, namely particular empirical laws, besondere Gesetze, which differ from the a priori categorical laws of nature in scope and access. For Kant this seems merely an analytic consequence of his account of nature in the KrV: transcendental logic just states the highest level of abstraction for beings like us, but the empirical determinations left out can just as easily be taken into consideration without a modification of his account.

Considered together, general and particular laws constitute a "system of possible empirical cognitions" (XX:208), i. e. a set of continuously organised and unified interdependent laws of nature. This so-called unity of nature has a normative force, demanding a system of possible empirical cognitions, even though we should point out that this is a regulative idea rather than an established state of cognition. ²⁶⁶ Hence, nature demands, apart from the categorical order, a lawful and systematic order on the empirical level. In the following I would like to elaborate and argue for this further distinction.

The categorical laws of nature are the most general, yet they are not the *only* laws of objects of empirical cognition. Scientists have discovered that carbon melts at 6588°F, that $E=mc^2$ and that barn swallows migrate to warmer regions to spend the winter. Specific kinds of objects can thus be a cause in infinite many different ways apart from the most general laws

²⁶⁵Cf. V:180, 193, 404.

 $^{^{266}}$ In chapter 6 we will consider this regulative idea in more detail.

of nature. 267 Elsewhere in the KU we read that empirical laws are contingent from the point of view of the understanding. 268 Hence, the concepts of the understanding are not sufficient to state these kind of empirical laws of nature.

As Kant notes, these two levels of natural laws do not differ in terms of their content - i. e. relation to the object -, but rather in the way we gain insight into them. ²⁶⁹ The first kind of laws are originally generated by the understanding based on the forms of judgement. They can be thought of as a priori, independent of experience, by the pure understanding. The second kind of laws can only be cognised in the interaction with specific experiences. ²⁷⁰ Therefore, the latter kind of a posteriori laws are restricted to a specific class of objects of experience (carbon, barn swallows, energy, etc.), while the categories apply to *all* possible objects of experience.

Whereas the A-Deduction²⁷¹ seems to argue that empirical laws can be derived from the categories, in the B-Deduction it is noted, without further specification, that empirical laws cannot be derived from the categories. This position is maintained in the KU.²⁷² These laws must supervene on the categories, much like particular civil laws cannot conflict with the state's constitution. Kant acknowledges that for us to discover empirical laws, further content must be made available. This supports the strict distinction we have made between a categorial and an empirical level.

²⁶⁷Cf. V:183.

²⁶⁸Cf. 167 f., V:184 f.

²⁶⁹Cf. A56 f./B81.

²⁷⁰Cf. "We must, however, distinguish empirical laws of nature, which always presuppose particular perceptions, from the pure or universal laws of nature, which, without having particular perceptions underlying them, contain merely the conditions for the necessary unification of such perceptions in one experience; with respect to the latter laws, nature and possible experience are one and the same [ganz und gar einerlei]" (IV:320, cf. A216/B263).

²⁷¹Cf. A114, A127 f.

²⁷²Cf. "the derivation of the particular laws from the universal, as far as what is contingent in the former is concerned, is impossible a priori through the determination of the concept of the object" (V:404, cf. e. g. 180, 185). This point is also stressed by Zuckert (2007, 27 ff.) as we will see below.

"The pure faculty of understanding does not suffice, however, to prescribe to the appearances through mere categories a priori laws beyond those on which rests a *nature* in general, as lawfulness of appearances in space and time. Particular laws, because they concern empirically determined appearances, cannot be completely derived from the categories, although they all stand under them." (B165)

"There are therefore certain laws, and indeed a priori, which first make a nature possible; the empirical laws can only obtain and be found by means of experience, and indeed in accord with its original laws, in accordance with which experience itself first becomes possible." $(A216/B263)^{273}$

Following these citations, the categories do not suffice to gain insight into the empirical laws of nature, rather we have to consider empirical experience. In experience we are confronted with empirical objects whose behaviour has not been fully determined by the laws of our understanding. There exists, as Buchdahl (1992, p. 213) famously notes, a "looseness of fit" between the categories and the empirical laws.

Rather than having a priori insight into all of the laws of nature, we must take into account empirical content that cannot be derived from the categories alone. This statement is repeated several times in the third Critique and forms a central presupposition of the Deduction of the principle of purposiveness (see step II in 5.3). At the same time I have warned in 1.4.1 not to overstate the reaction in the KU towards this looseness of fit; the principle of purposiveness is not an epistemological lever.

Threat of Contingency

Recognising these two levels of the laws of nature is crucial to identifying the problem for sense-dependent discursive beings like us. We are the 'lawgiver of nature' insofar as the understanding prescribes the categorical order to the objects of experience, yet we do not belong to the kind of beings that can create objects

 $^{^{273}\}mathrm{Cf.}$ "There are many laws of nature that we can know only through experience" (IV:318 f., cf. A159/B198).

just by thinking of them. Consider for instance the cautious way Kant expresses himself when he describes our understanding as the 'lawgiver of nature'. In these situations he is careful to restrict this statement to the categories, otherwise, as he himself notes, this statement would be absurd, befremdlich.²⁷⁴ We can think of an object, like a pink elephant, regardless of whether this representation is real. Hence the modal category is a variable of a representation, as is confirmed in Welches sind die wirklichen Fortschritte, die Metaphysik seit Leibnitzens und Wolffs Zeiten in Deutschland gemacht hat? (1804) (FM). In this writing and elsewhere Kant distinguishes between 'logical' and 'real' conceptual possibility; in the first case the thinkability is the criterion while in the second case the reality depends on the "presentation of the object corresponding to the concept" (XX:325). In other words, the modality of our representations does depend on the sensual given and on our understanding.

This is different in the case of *intellectual intuition*, producing and cognising objects through the spontaneous act of self-awareness (cf. 4.5). If it would command our finite natural language, it would express herself in the following way: "all objects that I cognize would be (exist)" (V:403). Since our mind is constituted differently, as we will elaborate in the following chapter, it depends on the empirical intuitions offered to our senses.²⁷⁵ Therefore the form of experience is not identical to the content of experience.

How does this insight affect our two levels of nature? On a categorial level the understanding is the lawgiver of nature. Nothing in his 1790-account impedes Kant from changing his position: we can think the *possibility* of the object of experience a priori, yet we cannot experience the *existence* of the object of experience a priori. Meanwhile I have noted various times that the transcendental focus on the a priori contribution of the mind to experience leaves out the empirical matter. This matter is

²⁷⁴Cf. "wohl sehr widersinnisch und befremdlich" (A114). In a similar cautious way Kant introduces the statement that the understanding is the source of all natural laws, i. e. the categories. For example, at the end of the A-Deduction ("so übertrieben, so widersinnisch...", A127), at the end of the B-Deduktion ("es ist um nichts befremdlicher...", B164) and in the Prolegomena ("so klingt es zwar anfangs befremdlich...", IV:320).
²⁷⁵Cf. V:180.

thus contingent from the perspective of the understanding. While the understanding prescribes the categorical order, the empirical laws, rules and concepts can only be discovered by *reflecting* on the empirical manifold. Whereas nature must accommodate itself to the categories in order to be an object of cognition, reflection on nature's laws depends, among other things, on the material offered to the senses.

As we have seen in previous chapters, the latter activity is guided by the principle of purposiveness according to which nature is ordered in concert with the discursive character of our mind. Without this principle, the contingency of empirical nature for us would not accord with the demand of lawfulness imposed by nature_F, which would present a serious threat to the unity of experience.

3.5 Disputes about Second Analogy

To study this problem more closely, we need further arguments for the suggested distinction between a transcendental and an empirical level. Not all scholars simply accept this distinction, as the discussions around the Second Analogy will show. I will dedicate the remaining part of this chapter to this discussion. The Second Analogy lends itself to discussing the contribution of the Grunds"atze, since the advanced state of the discussion around this famous chapter has resulted into two well-established interpretations, allowing me to rely on one branch of interpretation. I do not aim to contribute to this discussion, but rather refer to what is a crucial step in the interpretation of the principles, with consequences for the distinction between the categorial and empirical account of nature and eventually for the KU as a whole.

The principles [Grundsätze] are the "rules for the objective use of categories" (A161/B200), exhibiting how "the pure concepts of the understanding [can be applied, T. M.] to appearances in general" (A138/B177). The principle of the "temporal sequence according to the law of causality" (B232) states that cause and

effect are necessarily subsequently ordered in time such that a cause of type A is always followed by an effect of type B – and not the other way around. This a priori law of the understanding constitutes experience insofar as an alternation can be the object of experience only if it falls under the law of causality; otherwise we would not be able to determine the relation between two different moments. Metaphysically speaking, everything in nature stands in a causal relation and there is nothing in experience that is not causally determined. 277

The dispute is concerned with the implications of this a priori law of nature. Does it follow that there is some natural law that determines the effect of type B of all events that belong to a cause of type A? Such a demanding interpretation is known as a same cause, same effect-interpretation. Or does Kant merely state that from an a priori point of view all singular events stand in causal relations, regardless of the particular law involved? This moderate interpretation is known as an every cause, some effect-interpretation. 278

Demanding Interpretation

According to the first, more demanding interpretation every succession of events of type A followed by type B is necessary because of causal determination. A famous version of such an interpretation is offered by Strawson (1966). According to him, Kant infers causal necessity from the conceptual truth that events of type B necessarily follow after events of type A if type A and type B are causally related. But such an inference is in the notable words of Strawson (ibid., p. 85) "a non sequitur of numbing grossness".

²⁷⁶Cf. "All alterations occur in accordance with the law of the connection of cause and effect" (B232) "If, therefore, we experience that something happens, then we always presuppose that something else precedes it, which it follows in accordance with a rule." (B240/A195, cf. IV:296, A444/B472, V:183)

²⁷⁷Cf. B234.

²⁷⁸For the first interpretation, see for instance: Rang (1990, 27 n.), Friedman (1992a), O'Shea (1997, p. 229). For the second interpretation, see for instance: Allison (1996, 86, 247 ff.), Allison (2004), Buchdahl (1992), Beck (1981), Keil (2001, 562 f.), Breitenbach (2006, p. 699), Zuckert (2007, p. 27), Pippin (1982).

Namely, if we perceive an asymmetric succession of events, it does not follow that this succession is *necessary*, simply because our concept of causality brings both events in a necessary connection. According to Strawson, Kant cannot assume that states we do perceive as conceptually connected are therefore actually causally depended as "objective states of affairs"²⁷⁹. Put differently, successions of empirical events do not become necessary simply because we bring them into a causal relation.

For Friedman (1992b), an advocate of the demanding reading, the goal of the Second Analogy is to explain the relation between transcendental and empirical laws. In his view, the transcendental laws guarantee and ground empirical lawfulness. In one case this is spelled out, namely where the laws of motion are derived from the categories in the MAN. Kant indeed notes at various points that the causal relation follows a rule²⁸⁰, yet that we must acquire knowledge of such a rule to recognise the causal relation is stated nowhere.

For the unity of the experience of the exemplary boat sailing down the river it is necessary that we bring these representations in an irreversible order. But it is *not* necessary to know that these types of events *always* occur subsequently. In line with the demanding reading Guyer (1987, p. 252) believes that we can only properly experience a ship sailing down the stream if we have a full grasp of all the relevant natural laws involved such that our judgement about the causal relation is justified. Rightly, I think, Allison (1996, p. 89) in response points towards the danger of a circle, since on his own account the applied empirical laws can only be discovered by experience. Yet if these empirical laws were part of the necessary conditions for experience proper, we could not experience nor discover them in the first place, therefore the condition is identical to the result.²⁸¹ Instead, Allison suggests bringing into play the regulative and reflective faculties.

²⁷⁹Strawson 1966, p. 84.

²⁸⁰Cf. A189, A193/B238 f.

²⁸¹This limited role of the principle of causality for the search for regularities, as pointed out by the moderate reading, finds confirmation in the following citation: "We need the principle of the causality of appearances in order to be able to seek for and specify [angeben] the natural conditions [Naturbedingungen], i. e., causes in appearance, for natural occurrences." (A544/B572, emphases mine)

Moderate Interpretation

Strawson's critique and Allison's reply indicate why his own same cause, same effect-reading is too demanding. I believe that the moderate view offers a way out of the supposed confusion.²⁸² Following this view, Kant does not mix up a transcendental (or logical, in Strawson's words) and an empirical (or ontological, in Strawson's words) level; the Second Analogy merely states that the objects of experience in a particular instance are standing in causal relations to other objects of experience. This form of the thought of an objective succession is a prerequisite for experience in the first place. If we would simply recognise an indeterminate subjective order, we would not be able to represent any temporal order at all. 283 Whether events of type A are always followed by events of type B, as an empirical law would state, is not decided by this principle; otherwise Kant would leave behind the important distinction between a categorial and an empirical level, which is deeply inscribed into the set-up of transcendental philosophy (see the second half of 3.3). Hence, on this moderate account, the principle prescribes the structure of a causal relation, while on an empirical level only experience can guide us towards the discovery of causal connections.²⁸⁴

Moreover, in support of the moderate reading it might be helpful to step back and consider the other analogies, i. e. rules to install a unity of experience among temporally ordered perceptions. ²⁸⁵ For instance, we do not have to know to what kind a certain substance belongs in order to describe something as a substance persisting over time through different states. In this case, the substance is a rule to label various perceptions as instances of the same substance. Similarly, the Second Analogy is the rule stating the

 $^{^{282}}$ Cf. Allison 2004, 255 f.

²⁸³Cf. ibid., p. 231.

²⁸⁴I refer once more to the citations on page 134. Cf. "In other words, since I have to think causality in every such case, the Kantian argument, with respect to the laws of science, would prove too much, if it were regarded as a foundation for science in the sense of a lawlike network of nature, rather than being – as Kant has been found to state explicitly – only a foundation for nature in general, i. e. as "the sum of 'appearances'." (Buchdahl (1992, p. 207)) N. B., I treat the account of nature in general differently than Buchdahl does.
²⁸⁵Cf. A180/B222.

interdependence of the sequential order, allowing the continuity and unity of experience. 286 Following Allison (2000, p. 80), a vocal representative of the latter camp, the Grunds"atze are necessary formal conditions of the possibility of experience, which are not concerned with the empirical aspect of experience:

"It is a significant, yet generally ignored remark in the Second Analogy that [Kant, T. M.] is concerned with determining merely the 'formal conditions of empirical truth' " (A191/B236).

In my view, this position is much in line with the level of abstraction transcendental philosophy amounts to. I have indeed stated previously, in 1.3, that transcendental philosophy is not concerned with cognition of objects, but rather with the a priori contribution of our mind to the mode of our relation to objects of experience. Furthermore, on Allison's account, our cognition would be *contingent* if we would lack a further principle to regulate the order of cognition. I assume this to be an important presupposition to approach the KU, since it offers priority to a regulating and a reflecting activity. Restricting the role of the understanding allows other faculties, like the RPJ, to reflect on the empirical regularities of objects in nature.²⁸⁷

Rather than contributing to the discussion on the Second Analogy, I have implemented a rough outline of the discussion to support the distinction between a categorial and an empirical level in the transcendental set-up. Transcendental philosophy, on my reading, can only be concerned with the most general laws of nature, namely the a priori concepts of the understanding, and therefore must stay indifferent to particular empirical features. Due to the constitution of our mind, the a priori concepts of our understanding do not cover all empirical features. As we will see in chapter 5, this will lead to a threatening contingency that needs to be solved in order to save the unity of experience.

²⁸⁶Cf. Allison 1996, p. 86.

 $^{^{287} \}text{Breitenbach}$ (2011) chooses a similar line of argument to prepare the road for the KU s contribution.

141

3.6 Conclusion

I have stated and argued throughout this chapter that the account of nature plays a central role in Kant's third Critique. It was particularly important at this stage of the argument to elaborate two crucial distinctions that are implicit in this account in order to appreciate the initial problem in the third Critique. Since Kant does not provide the necessary terminology in the KU, while referring explicitly to the KrV for a discussion of this account.

We argued that nature_F, the principle of something, and nature_M, the sum total of possible objects of experience (something), are interdependent. A set of objects can be distinguished from others due to their principle, the nature of x, i. e. nature_F. We referred to transcendental logic, which, unlike general logic, is always related to possible content insofar as it depends on the source of our cognition of objects. Following this argument we specified this content as the transcendental object, being the minimal account of matter, not determined by empirical features but still securing the immanence of nature. Identifying the interdependence between nature_F and nature_M is in my view crucial to arguing that wherever Kant mentions the account of nature in the KU, that account always implies a lawfulness of something that is immanent. This is important in light of the theological threat (immanence of nature_M) as well as the demand for a common causal principle (lawfulness of nature_F), both faced in the Antinomy of the KtU (cf. 2.3.3). Moreover, we learned that nature is not a given domain of objects out there, but rather refers to the possible objects we can know, considering the contribution of our mind to those objects.

In the second part of this chapter we discussed a further distinction concerning the scope of the laws of nature. Since we are dealing with the 'highest point of transcendental philosophy', the level of abstraction of nature in general is high, as it must entail all possible lawfully organised objects of experience. We saw that the understanding is the lawgiver of nature insofar as the a priori

²⁸⁸Cf. citation on page 131 for textual evidence.

account of nature	material	formal
general	something	categories
particular	classes of objects	empirical laws

Table 3.1: Two implicit distinctions entailed in the account of nature.

conditions of the possibility of nature are at the same time the most general laws of nature. The third *Critique* emphasises the distinction between general categorical and special empirical laws of nature, differing in their scope, which is either the sum total of possible objects of experience or a certain class of objects (matter, carbon, trees, etc.), and differing also in the way we gain insight into them, namely through transcendental analysis of the conditions of cognition or through reflection on specific experiences (see table 3.1 for a tabular presentation).

In support of this distinction I have considered a debate between two interpretations of the Second Analogy, which is the principle stating that "all alterations occur in accordance with the law of the connection of cause and effect" (B232). There is a demanding interpretation according to which the cognition of a causal connection includes the formulation of the causal rule underlying the connection of every event of type A and every event of type B. Yet I have argued why I favour the moderate interpretation, merely stating that the objects of experience in a particular instance stand in causal relations to other objects of experience. In my view it is a characteristic of transcendental philosophy to leave out empirical content in order to focus on the necessary contribution of our mind to our relation to objects, implying a distinction between general (categorial) and particular (empirical) laws of nature.

These distinctions, together with the discussion of the discursive character of our mind in the following chapter, pave the way for the Deduction of the principle of purposiveness. According to my interpretation, the contingency of empirical laws, threatening the unity of experience, is due to the dependency of our cognition on these laws on experience. Moreover, a distinction between these two levels is crucial to lead us to the role of reflection by the RPJ, which is, according to my overall interpretation, the central faculty in the KU.

Chapter 4

Discursiveness

4.1 Orientation

To situate the current chapter on the discursive character of our mind within the overall problem of the KU, we might quickly present the stage of the argument in terms of the previous chapter. Regardless of our epistemic state, nature_F demands lawfulness to guarantee the unity of experience, as expressed by the maxims for the investigation of nature. Lawfulness always implies necessary a priori rules, but due to its empirical character we depend on sensory impressions and thus, at best, gain inductive probability of empirical regularity. This does not imply that all objects behave in a lawful way for us, since objects of experience are not solely a product of our understanding. Acknowledging the distinction between an empirical and a categorical level of explanation argued for in 3.4, we may accept that the behaviour of empirical objects in nature often appears contingent to us, since it is continuously determined in many different ways apart from the categories. This tension is overcome by the principle of purposiveness, presupposing a priori nature's responsiveness to the particular constitution of our mind.

As the italics in the previous paragraph suggest, we will discuss the particular constitution of our mind, namely the interdependence of a sensual and an intellectual stem of cognition. After arguing for their interdependence. I devote the rest of this chapter to a feature called *discursiveness*, i. e. the dependency of cognition on concepts. To understand what it means that nature is organised in concert with the peculiar constitution of our mind according to the formulation of the principle of purposiveness, it is crucial to explore the discursive character of our mind and some of its implications, as Kant stresses many times throughout the KU.²⁸⁹ Cognition for Kant involves the subsumption of objects under concepts such that these concepts, i. e. general mediate representations, operate as predicates in possible judgements. To presuppose that nature responds to the discursive character of our mind implies that it has an order which can be presented conceptually. This principle might include nature being ordered according to genus-species-relations, containing a sufficient degree of similarity for us to discover features while being manifold and continuously determined and stable over time. Yet to understand why this is the case we will have to dig deeper into Kant's theory of concepts. Having done so we will approach this question once more.

Even though the interplay between sensibility and intellect as well as between intuition and concept is a problem at the very heart of Kant's critical work, we should be careful not to lose ourselves in the many discussions around these genuine philosophical problems. Therefore, I might give the unhappy impression that I am walking with seven league boots over the most precious territory of Kant's work. Yet since I have formulated my aim, namely to discuss the motivation behind the third Critique rather than an in-depth-discussion of this argumentation in the first Critique, I hope this will be excused. I will, for instance, avoid the difficult question of the extent to which intuitions can be characterised as cognition or the discussion around (non-)conceptual content. I establish these restrictions on my discussion in light of the broader context, namely the recurring characterisation of our mind as discursive in the KU.

I will start this chapter in 4.2 with a short characterisation of our mind from the KU to identify the problem we are facing. In 4.3 I will discuss the fundamental distinction between the two

²⁸⁹Some of those references have already been presented in 1.3.

stems of cognition, namely between a sensible and an intellectual faculty, as well as between the two kinds of representations they generate. To overcome the dualism this suggests, 4.4 argues why cognition is only possible if the stems operate interdependently. 4.5 sheds light upon the particular constitution of our mind in view of the comparison with his contemporaries and the limiting concepts presented throughout the Kantian *corpus*.

4.2 Discursiveness in the KU

As in the previous chapter I would like to call to mind the motivation for considering the concept under investigation. The reason is that we will be dealing with a central term for the argument in the KU, which is primarily discussed elsewhere in the Kantian works. At some points in this chapter the reader might feel disconnected from the main question of this study; therefore I hope this section can offer sufficient orientation.

The discursive character of cognition for beings like us is a central presupposition at work in the KU and further critical works. Discursiveness is a feature ascribed to intellectual beings. The *modus operandi* of intellectual beings is thinking, an activity broadly defined as mental awareness. Discursive beings think exclusively by way of conceptual form.²⁹⁰ Surely, this could be taken as a tautology, since thinking is often defined throughout Kant's *corpus* as "cognition through concepts" but this definition is restricted to the human finite form of cognition. We will see in 4.5

²⁹⁰Somewhat differently, Quarfood (2011, p. 143) states that the main feature of discursiveness is its dependency on external input, "the fact that it [our cognitive capacity, T. M.] doesn't provide its own objects by thinking". Surely, receptivity is also an undeniable fact about our cognitive faculty and goes together with discursiveness, but when I talk about the latter, I mean its conceptual form.

²⁹¹Consider statements like: "All cognition requires a concept, however imperfect or obscure it may be" (A106, cf. R2841, XVI:541 (1780s?)); "Thinking is cognition through concepts." (A69/B94); "thinking, i. e. to cognise [erkennen], discursively by concepts" (R2281, XVI:298 (1780s?), translation mine); "To entertain something through concepts, i. e., in general, is to think" (XX:325); "Thus the cognition of every, at least human, understanding is a cognition through concepts, not intuitive but discursive." (A68/B93)

that Kant discusses other minds who do not think discursively in order to show – $ex\ negativo$ – that we are constituted in a particular way.

I would like to discuss this feature of our thinking because it is, similar to the various aspects of the account of nature, a presupposition imported from previous critical works with strong implications for the identified problem in the KU: reflection seeks for a concept, "that form required for the power of judgement" (IX:94), under the guidance of the transcendental principle according to which nature is ordered in accordance with the discursive character of our mind. Here is a prominent passage to identify the relevant concepts in light of the problem in the KU:

"for through the universal of our (human) understanding the particular is not determined, and it is contingent in how many different ways distinct things that nevertheless coincide in a common characteristic can be presented to our perception. Our understanding is a faculty of concepts, i. e., a discursive understanding, for which it must of course be contingent what and how different might be the particular that can be given to it in nature and brought under its concepts." (V:406, last two emphases mine)

The citation presents a consequence of the discursive constitution of our understanding which, in my eyes, delivers us right into a central problem in the KU, namely the contingency of our cognition of empirical nature. Due to the generality of conceptual representations, concepts refer to a potentially infinite amount of objects. These possible objects of cognition might differ among each other, even though they can be subsumed under the same concept, sharing at least one common feature [Merkmal] while omitting possible differences among the subsumed representations. As long as this common feature is shared, the representations can be subsumed under the concept.

That discursive representations leave out the specifics of the subsumed concepts and/or intuitions becomes very clear in the threefold act of logical analysis: as part of the act of comparison the various features of the objects are compared, as part of the act of reflection the relevant common features are grouped according to certain criteria, as part of the act of abstraction

all the irrelevant features are left out to arrive at a concept (see 7.3 for a more extensive discussion). Thus, if we arrive at the concept 'tree' after observing a Douglas fir, an oak and a larch, we overlook the differences in leaves, root, height, colour, age, soil, etc. What I would like to suggest is that if a concept is acquired through this threefold act, the differences between the instances (concepts, like the genus 'oak', and particulars, like 'this oak') are consciously overlooked in the act of abstraction. This indicates that concepts do leave out specific non-common features in line with the above citation. ²⁹²

Our discursive faculty does not gain full insight into the object of experience, since the feature through which we cognise the object refers to one distinctive element of the corresponding object(s). 293 Hence, the various representations referred to by a concept share one or more common features E; how they differ among each other apart from E is not relevant for this activity. As stated in the cited passage, the contingency of our cognition of empirical nature is a direct consequence of the discursive character of our understanding. Moreover it is important to note that this peculiar way is the *only* way we can cognise, as the transcendental approach reveals; unlike many of his contemporaries, Kant does not acknowledge a higher intuitive grasp for us.

Anticipating the discussion of the Deduction in chapter 5, we can state that the contingency of empirical (non a priori) cognition threatens the unity of experience. To save the unity of experience, a transcendental principle a priori is introduced, stating that nature is responsive to the peculiar discursive constitution of our mind. While I will save a detailed discussion of the Deduction for later, at this point I would like to emphasise in support of this chapter's relevance that the account of discursiveness plays a role both in the problem of the Deduction and in the justification of the underlying transcendental principle. Yet to prepare ourselves to approach this problem, we need to ask under which presuppositions the discursive character of our mind takes on such an important and central role in Kant's philosophy. To begin with, I will present the two stems of our mind.

²⁹²Cf. the citation in note 216 on page 106 and Düsing (2013, 100 f.).

²⁹³According to Prien (2006, p. 47) this is the main thought of Kant's theory of concepts.

Faculty	Sensibility	Understanding
Representation	Intuition	Concept
Mind's Activity	Affection	Function
Quantity	Singular	General
Mediacity	Immediate	Mediate

Table 4.1: Overview of a comparison between the two stems and their corresponding forms of representation.

4.3 Forms of the Two Stems of Cognition

Kant sets forth a 'transcendental' distinction between two 'very heterogene' $(V:401)^{294}$ stems of our cognitive faculty. These faculties are fundamentally different in respect to their "origin [Ursprung] and their content" $(A44/B62).^{295}$ Except for understanding and sensibility we have 'no other' (A294/B350) stem – even though Kant is quick to note that we cannot give arguments for the heteronomy of the two stems. ²⁹⁶ I will firstly present these stems and the corresponding forms of representations in opposition to each other (see table 4.1 for an overview); the section hereafter argues for their interdependence.

The distinction between these two stems lies primarily in the mode of their activity, being *receptive* in the case of the sensible faculty and *spontaneous* in the case of the intellectual faculty.²⁹⁷ Thus through the sensible faculty representations objects are given to us, and through the intellectual faculty representations of objects

²⁹⁴Cf. A15/B29, A50/B74, A271/B327.

²⁹⁵Cf. VIII:219 and Engstrom (2006, p. 5).

²⁹⁶ This is stated explicitly in ÜE: "But we could still provide [in the KrV, T. M.] no reason why we have precisely such a mode of sensibility and an understanding of such a nature, that by their combination [Verbindung] experience becomes possible; [...] this we could not further explain (and neither can anyone else)." (VIII:249 f., cf. XI:51, B29)

²⁹⁷A terminological note: I will be using the term intellectual faculty instead of understanding or reason, since the latter terms are used both for the generic intellectual faculty and for more narrow tasks, like determining rules in the case of understanding and inferences in the case of reason. Mind [Gemüt] is the umbrella term for the sum of all faculties in theoretical and practical respect.

are thought.²⁹⁸ In the first case, sensibility merely receives the representation in accordance with the forms of intuition, either when something affects the mind or when the mind constitutes the object in pure intuition. In the second case the intellectual faculty is "bringing forth representations itself" (A51/B75) by being conscious of itself. As a result, spontaneity and receptivity are mutually exclusive activities.²⁹⁹

Neither of these stems errs by itself. Since truth and falseness are features of judgements and judgements are solely products of thinking, the senses do not err. More surprisingly, Kant notes that the "understanding by itself (without the influence of another cause)" (A294/B350 301) would not err, because the judgement would simply accord with its own laws. This is relevant insofar as *fallibility* is a result of the peculiar constitution of our mind: a simple understanding or a simple sensibility would not err. 302

Intuitive vs. Discursive Cognition

This fundamental difference between the two faculties affects the corresponding representations they generate. From the intellectual and the sensual faculty two different kinds of content – i. e. "relation [Beziehung] to its object" (A58/B83³0³) – arise, respectively concept and intuition. The ambivalence of 'relate to', beziehen auf, meaning both representing the object and referring to the object ³0⁵, applies to the two kinds of representations. The following neat citation from a draft for FM characterises and connects the faculties and their respective representations:

²⁹⁸Cf. A15/B29, A50/B74.

²⁹⁹"The understanding is not capable of intuiting anything, and the senses are not capable of thinking anything." (A51/B75, cf. A293/B350)
³⁰⁰Cf. A293/B350.

³⁰¹Cf. XXIV:863.

 $^{^{302} \}mathrm{Pollok}$ (2014, p. 525) also points out the falsifiability of our cognition. $^{303} \mathrm{Cf.}$ A55/B79.

^{304&}quot;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." (A19/B33, cf. A92 f./B125.)

³⁰⁵Cf. Watkins and Willaschek (2017, p. 88).

"As to man [unlike 'higher spirits', T. M.], however, such a knowledge in him consists of concept and intuition. Each of these two is representation, indeed, but not yet knowledge. To entertain something through concepts, i. e., in general, is to think, and the power to *think*, understanding. The immediate representation of the individual is intuition. Cognition through *concepts* is called *discursive*, that *in intuition*, *intuitive*; for a cognition we in fact require both combined together" (XX:325).

The mode of representing by the sensible faculty is through intuitions, i. e. intuitive; the mode of representation by the intellectual faculty is through concepts, i. e. discursively. Intuitions rest on affection, leading towards a manifold of singular representations; concepts rests on an operation called function 306 , aiming at unification. In the first case the content is immediate [unmittelbar], since it refers immediately to a single representation [representatio singularis, IX:91 307] with a unique spatiotemporal coordinate. In the second case the content is mediate [mittelbar], since the concept does not refer to a particular representation, but a set of ≥ 0 objects of experience "by means of a feature [vermittelst eines Merkmals]" (A320/B377 308).

The feature through which the object relates to subsumed representations is called the ground of cognition [Erkenntnisgrund, ratio cognoscendi] if it is a feature due to which some other cognition can be gained.³⁰⁹ For instance, 'being spherical' is the ground of cognition to determine an object of experience as an instance of the concept 'plate'. Here 'being spherical', as the ground of cognition, is the partial representation to cognise the representations being subsumed under the concept.³¹⁰

While intuitions are by definition singular, the amount of objects a concept relates to is not restricted, and therefore a conceptual representation is described as general and as a repræsentationem

^{306&}quot;By a function, however, I understand the unity of the action of ordering different representations under a common one." (A68/B93)

³⁰⁷Cf. A19/B33, B198/A159.

 $^{^{308}{\}rm Cf.~A19/B33.}$ On this feature, see B40, A68/B93, IX:58, XVI:298 (1780s) and 4.3.

 $^{^{309}}$ Cf. R2282, XVI:298 (1780s), Watkins and Willaschek (2017, 97 n., 99). 310 Cf. A148 f.

communem elsewhere (IX:94)³¹¹. Thus an intuition always immediately refers to (but is not identical to) one and not more than one particular element, whereas a concept mediately refers to a possible set of particular elements. For example, two instances of the concept 'hand' are conceptually identical whereas they differ numerically. Hence from my point of view the distinction between concept and intuition lies primarily in the difference in mediacity rather than the quantity. In contrast, for Hintikka (1974) the immediacy criterion is a mere corollary of the quantitative account. From my point of view it does not matter whether a concept is referring to zero, one or to all objects; as long as it can refer to objects indirectly through features, we are dealing with a concept. This is stated clearly, I believe, in the following citation from the Metaphysical Deduction:

"It is therefore a concept only because other representations are contained under it by means of which it can be

According to Smit (2000, 238 f.) we should consider intuitive features, undermining the mediate/immediate-distinction between concepts and intuitions. On Smit's account, intuitions can also entail features as part of an intuition, but they differ from discursive features, because they are singular (not common). His example of such an intuitive feature is a geometric concept used adjectivally in a demonstrative statement, like "this page has a rectangular shape" referring to the perception of the page in front of your eyes (ibid., p. 254). It is true that geometry is an intuitive and a priori science according to Kant, but if we ascribe a geometrical shape to an object, like rectangularity to this page, we use that feature discursively, since it is predicable of more than one thing (e. g. "these pages are rectangular"). I am not denying that Kant refers to intuitive features in two passages (R2286; XVI:299 f., (1780s); XXIV:725), but I am not sure what to make of it and do not think that Smit offers a helpful account.

Moreover, the quantitative distinction could be undermined by individual names, referring to not more than one singular object of experience. Although one might argue that Kant accepts individual names (cf. IX:91), it is in their use rather than their disposition that they are singular, as Hanna (2001, 208 f.) convincingly states. Therefore the quantitative distinction is not undermined by individual names.

³¹¹Cf. "The form of all concepts is generality [Allgemeinheit]" (R2834, XVI:536 (1769-70), cf. A106).

³¹²Cf. A320/B377, VII:196, IX:36, 91. In contrast, in his interpretation, Wolff (1995, 80 f.) introduces immediate concepts, but I do not see a place for them within a Kantian theory of concepts.

³¹³For a critique of this position, cf. Allison (2004, 80 f.).

³¹⁴Cf. XX:325.

related to objects. It is therefore the predicate for a possible judgement, e. g., 'Every metal is a body'." (A69/B94, emphasis mine)

The concept of 'body', to adopt Kant's example, is a concept only because it entails representations through which this concept can mediately refer to objects or concepts. One of those representations is in this case the concept of 'metal', e. g. 'all pieces of metal are bodies'. In other words, a concept can operate as a predicate in a judgement having the form 'S is P'. It follows that a concept is not primarily a linguistic entity, but rather a representation that mediately refers to a possible set of representations. This, I believe, is clearly in favour of the primacy of mediacy over quantity in the current context.

Possibility of Continuous Determination

Having said that, I would like to pursue this characterisation of concepts, which will become relevant at a later point. Firstly, it is interesting to note that in Kant's view representations of objects are continuously [durchgängig] determined. Thoroughgoing determination means that "among all possible predicates of things, insofar as they are compared with their opposites, one must apply to it" (A571/B579). Whereas a predicate like 'red' is determined in just one respect, namely regarding the colour, objects of representations are continuously determined if we can determine them in every respects: colour, size, shape, etc. ³¹⁶

Suppose that we decide to characterise a clock as an device to make known the time of day. In this functional description of a clock a partial feature is highlighted to operate as a ground of cognition. Such a ground of cognition operates as a mediate feature to cognise objects belonging to the class of clocks. It is crucial that representations of clocks are continuously determined, yet features apart from the ground of cognition mentioned, like

³¹⁵Cf. A320/B377, VII:196, IX:36, 91.

³¹⁶Cf. Prien (2006, 14 f.). Cf. "Note: Since only individual things, or individuals are thoroughly determinate, there can be thoroughly determinate cognitions only as intuitions, but not as concepts; in regard to the latter, logical determination can never be regarded as completed." (IX:99, cf. A573/B601 and V:406 f.)

colour, height or country of origin, are not taken into consideration, therefore the ground of cognition does not cover "the complete [vollständige] experience of the object" (A8). Hence the chosen feature, as a ground of cognition, is a partial representation to determine the full representation.

Yet for the critical Kant the idea of a continuously determined concept is illusory: the finite mind cannot gain access to a totality of predicates completely determining each individual thing. Drawing on the previous discussion we can offer the following argument for this position: discursive beings cognise objects of experience 'only through features'. These features, as grounds of cognition, are partial and finite; therefore the subject never arrives at the particular unique determination of a singular object. Depending on the state of education of the individual subjects, one might be able to distinguish more features than the other, still we cannot arrive at a continuously determined concept. This is, moreover, one of the reasons why I believe that individual conceptual representations do not fit within Kant's account.³¹⁷

The bottom line here is that the impossibility of an individual concept implies the impossibility of a perfect fit between intuition and concept. Instead, finite discursive beings like us, who can only cognise objects through concepts, can exclusively refer to objects through features and therefore necessarily do not have a complete grasp of the object of experience. This is important in light of 7.3 where we will see that a central moment in the acquisition of concepts is the selection of relevant features while subsequently other features are left out in the final moment of abstraction. To allow progress in our inquiry of nature we reflect, led by the principle of purposiveness, presupposing the organisation of nature according to "that form required for the power of judgement" (IX:94), namely concepts.

Taxonomical Relations

We have seen that, on a Kantian account, in concept C the features $P_1, P_2, \dots P_n$ are enclosed; by way of these features we

³¹⁷ Further arguments for this position have been presented in note 312 on page 151.

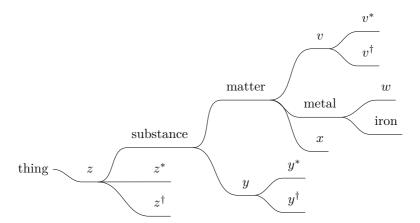


Table 4.2: Example of a taxonomy.

can cognise an object as instance of concept C. Therefore the concept C stands under its features $P_1, P_2, \ldots P_n$ as expressed explicitly in the judgemental form "S is P".

To describe this implicit hierarchy, we might consider a string of hierarchically ordered concepts like "iron, metal, body, substance, thing" (IX:97), which has been presented within a taxonomy for reasons of illustration (see table 4.2). The first in the order is lowest in hierarchy and the most specific whereas the latter is highest and the most general. All the relevant features of the genus hold of the species, but the species differs from the genus by further differentiae specifica. For instance, 'matter' as a feature of 'metal' is true of 'iron', yet 'iron' has further features which are not entailed in the concept of 'metal', therefore a definition of 'iron' as 'matter' cannot be an adequate description.

Moreover, what is true of the superordinated concepts is *necessarily* true of the subordinated concepts. 318 For instance, non-extended iron is impossible since extension is a feature of body. As a result, concepts are part of a semantic web organised by relations of subordination such that, for instance, the principle of

³¹⁸Similarly, being extended implies impenetrability and shape: "Thus the concept of body serves as the rule for our cognition of outer appearances [Wahrnehmung von Etwas außer uns] by means of the unity of the manifold that is thought through it." (A106, cf. R2841, XVI:541 (1780s)).

the "explanation and comprehension" (V:185) of 'metal' is also valid for 'iron', 319

Since concepts, being "discursive all the way down"³²⁰, can entail many different instances sharing at least one common feature, namely the ground of cognition, it follows that this set of objects can be specified into further subspecies. A genus can entail infinite many species, ³²¹ even though a subjective restriction on the depth might be assumed. ³²² On the other hand, we have already seen in 3.3 that there is a highest genus, namely something, which cannot be analysed further. In consequence, we might say that this web is finite at the top and infinite at the bottom. ³²³

One way of phrasing the demand of systematicity by reason, which we will encounter in chapter 6, is to formulate it as a demand for completion of such a taxonomy. Yet it is important, I believe, not to raise the burden of cognition too high by demanding such completion for every concept, otherwise demarcating the genuine contribution of the KU from the positive contribution of the reason becomes problematic. As we will argue in 6.4, regulation by reason is additional to ordinary cognition while it is necessary for systematic cognition. It is helpful to frame systematicity by adopting Kant's distinction between subordinated and coordinated concepts. 324 Coordinated concepts are a horizontally related set of semantically coherent concepts that are logically independent of

³¹⁹ Cf. IX:95–8, A833/B861. See Tolley (2012, pp. 433–6) for a more detailed discussion of these relations of subordination. With Longuenesse (1998, pp. 90–5) we can push this consequence one step further: concepts, as possible predicates in a judgement, imply judgements, judgements imply inferences and inferences imply an anticipated system of rules, since every judgement can operate in a syllogism as a minor or major premise or a conclusion. For instance, that "iron is extended" can be taken as a conclusion from "bodies are extended" (major) and "iron is a body" (minor).

 $^{^{320}\}mathrm{Watkins}$ and Willaschek 2017, p. 99.

 $^{^{321}\}mathrm{Cf.}$ A464/B682–A646/B584. I will discuss the reason behind this position later in chapter 6.

³²²This suggestion is made by Prien (2006, pp. 19, 87).

³²³Cf. "entium varietates non temere esse minuendas" (A656/B684). And: "Die reihe der subordinirten a parte post in Ansehung der Folgen ist unendlich. (Wir haben ein höchstes genus, aber keine niedrigste species.)" (R2293, XVI:303 (1760–1764), cf. IX:59)

³²⁴Cf. IX:59. This difference has been pointed out by Zuckert (2007, p. 45), although she adopts the distinction to argue in an opposite direction.

their higher generic concept. Subordinated concepts are logically dependent insofar as the subordinated concept depends on the content of the higher concept - as illustrated by the taxonomy (see table 4.2).

Expecting nature's purposiveness may imply the expectation of logical subordination relations expressed in a system of possible empirical cognition. Yet we should be aware that subordination of features under a concept is a *consequence* of the relation between concepts in judgements rather than a necessary feature of concepts. Concepts allow a hierarchical order, and proper systematic science demands a taxonomical order of subordinated concepts, yet subordination is *not necessary* for a representation to be a concept.

The latter remark also applies to the principle of purposiveness: it is surely true that this principle (regulatively) claims that nature is organised in concert with the particular sense-dependent discursive character of our mind. It must thus entail features by way of which the object can be determined. As much as it is true that the taxonomy is a consequence of Kant's theory of concept, it is also true that the "cognizable order of nature", namely "that there is in nature a subordination of genera and species that we can grasp", (V:185)³²⁵ is a consequence, but not the main objective, of the principle of purposiveness, as I have argued in 1.4.1 and will argue more extensively in 5.2. Similarly, that we are justified in "the idea of a big system of purposes of nature" (V:380) if we can apply the account of a natural purpose reflectively is a consequence, but is not entailed in the initial account of the principle of purposiveness. I will extend this view in chapter 6.

4.4 Overcoming Dualism

Apart from the cited passage from the FM on page 150, everything discussed so far in the current chapter points towards a fundamental dualism between sensibility and understanding

 $[\]overline{^{325}}\text{More}$ passages along those lines can be found in the EEKU, e. g. XX:208, 212–14.

regarding the source of cognition, and between intuition and concept regarding the content of cognition. Yet within a Kantian picture we are neither fully and exclusively determined by sensibility nor fully detached from sensory impressions by the spontaneous activity of our intellect.

In chapter 3, especially in 3.3, I have argued for a hylomorphic account of nature; here I will also attempt to overcome the dualism between concept and intuition. There is always an interplay between the two stems, which, as we will see, makes up the particular character of our mind. We are not dealing with a theory proposing to take the understanding as an additional feature, rather the understanding fundamentally transforms sensibility. 326 Indeed, immediately after recalling the disjunction of the two stems Kant recurs to the interdependence of intuitions and concepts for cognition, i. e. the conscious representation of a given object. 327 There he famously notes that the two stems and the two kind of representations presuppose each other in order to contribute to cognition:

"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. It is thus 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). [...] Only from their unification can cognition arise." (A51/B75 f.)³²⁸

Empty and blind are two possible fallacies within Kant's account of cognition. Both occur if the sensual and conceptual representations are not unified. Kant's preferred term for the conjunction of a manifold of (intuitive) representations to the unity of consciousness is *synthesis*.³²⁹ Following the above citation, conceptual

³²⁶Cf. Boyle (2012).

³²⁷Cf. A50/B74, A77/B103, A105 f., A120, VII:140, IX:64 f., 91. Unlike cognition, knowledge (*Wissen*) claims a believe to be true and demands justification (cf. Watkins and Willaschek (2017, p. 87), Moore (2012, 112 f. n.)). While knowledge *can* be purely conceptual, cognition always involves reference to an object.

³²⁸Cf. A258/B314, A581/B609, XX:325 (quoted on page 150).

³²⁹ Due to spatial restrictions I cannot do justice to Kant's extensive account of synthesis in the A-Deduction.

representations must be accompanied by corresponding intuitions and intuitions must be accompanied by corresponding conceptual representations.

Concepts lacking "objective reality, i. e. relation to objects" (B150) are called empty; they lack corresponding sensual content of objects and therefore can neither discern nor identify objects. ³³⁰ Thus, they lack sense for the reason that they do not refer to something. That this is a correct interpretation is confirmed by other applications of the term 'empty'. For instance, negating judgements that are true in all cases are described as "quite true yet empty [...] i. e., not appropriate for their purpose" (A709/B737). Similarly, tautologies are also called empty.

The Aesthetics in the KrV might give the impression that Kant accepts sheer intuitions, independent of concepts, but the Analytics, in contrast, states that the sensual manifold must agree a priori with the forms of judgement. In this respect it is crucial to bear in mind that the same function of the understanding gives unity to the logical form of a judgement and to the manifold in an intuition. Sheer sensual representations, lacking any kind of conceptual order, are described as blind, since they do not represent and refer to an object. Without the synthesising activity of the understanding the manifold lacks the coherence required to cognise objects: "Otherwise I would have millions of impressions but no intuition of a whole object." (XXIX:800)³³²

³³⁰Cf. A156/B95. Cf. "[F]or if an intuition corresponding to the concept could not be given at all, then it would be a thought as far as its form is concerned, but without any object, and by its means no cognition of anything at all [emph irgend einem Dinge] would be possible, since, as far as I would know, nothing would be given nor could be given to which my thought could be applied." (B146, cf. A582/B610). One might add: "without matter [Stoff] nothing at all can be thought" (A232/B284), "[f]or without intuition all of our cognition would lack objects, and therefore remain completely empty." (A62/B87)

 $^{^{331}\}mathrm{Cf.}$ A79/B104 f.

³³²Cf. B164, A122. Another apt description of such a state is offered by Conant (2012, p. 14): "An outer object's impinging on the senses would appear, as such, to be a mere transaction in nature, and, taken in and of itself, not to be the sort of item that is 'about' anything, let alone the sort that ought to provide anyone with a reason for believing anything." According to Grüne (2009, p. 31) blind means 'incomprehensible'. Reflection operating without expecting to find a concept for every representation, that is: without the principle of purposiveness, is also described

These "intuitions without thought" (A111) are not connected by the synthetic unity of apperception in accordance with concepts, therefore not related to objects and, in consequence, not able to gain the status of cognition. For the kind of beings we are, these appearances are "as good as nothing" (A111), just a "swarm of appearances" (A111), a "rhapsody of appearances" (A156/B195) or "less than a dream" (A111 f.).

In light of these two fallacies I would like to stipulate that reception on the side of the senses and spontaneity on the side of the intellect must be both involved in the act of cognition. However, some interpreters are eager to count intuitions as cognition. Their most vocal advocate, Heidegger (2010, pp. 21–5, 35), believes that intuition delivers a more fundamental contribution than conceptual thought to cognition: "all that belongs to thinking is merely in the service of intuition." Moreover, a main objective of Grüne (2009, pp. 14, 22) is to argue for the genetic primacy of what she coins 'blind' intuitions over concepts in the act of concept acquisition. In contrast, I suggest that we take seriously the threat of blindness and not to prefer one faculty over the other.

Overstating Spontaneity

On the other hand, it is easy to overstate Kant's insistence on the role of spontaneity. Attempting to overcome the supposed dualism, Engstrom (2006, 9 f.) suggests that the role of sensibility is neither sufficient nor necessary for cognition; on his account spontaneity is sufficient and necessary for cognition. In the course of his argument he sets up an opposition between our discursive mind and sheer sense-dependent animals to argue that sensible input is not sufficient for cognition. A further opposition with an omniscient "absolutely spontaneous" infinite intellect is supposed to show that the dependency on sensibility is not necessary for cognition either, in line with Kant's characterisation of the intellectual intuition as "non-sensible" (B312/A256). Note that

as "arbitrary and blind" (XX:212, emphasis mine).

³³³ Heidegger (2010, p. 22). Translation mine. Dryer (1966, p. 66) also argues for such a position.

³³⁴Engstrom 2006, p. 10.

'intuition' in 'intellectual *intuition*' refers to the singularity of the representations rather than to the sensible source.

Engstrom argues that for a spontaneous infinite faculty the truth value of cognition does not depend on the sensual matter, rather such an intellect is an "absolutely self-sufficient source of its cognition" since an intellect of that kind can cognise insofar as it cognises itself. In light of his comparison, Engstrom (2006, 11 f.) concludes that sensibility is not necessary for cognition whereas spontaneity is necessary and sufficient for having cognition. Due to my insistence on highlighting the discursive character of our mind, one might get the false impression that I agree with Engstrom in this regard.

Yet I believe Engstrom takes a disputable stance for various reasons. Firstly, such a position easily falls pray to the fallacy of emptiness, as it was described above: without intuitions we cannot arrive at cognition. Secondly, Engstrom does not consider the specifics of our discursive mind. He seems to embrace the view that there are two instances of a generic account of an intellectual faculty, namely a finite (human) and an infinite (divine) instance. ³³⁶ Yet on my reading, it is not at all obvious that Kant acknowledges the strict distinction between understanding and sensibility for these kinds of different intellectual beings, therefore this merely quantitative distinction does not apply. Rather, the term 'limiting concept' already implies the lack of common ground between human and other thinkable minds. ³³⁷ In fact, I would

³³⁵Engstrom 2006, p. 10.

³³⁶ This is a Leibnizian account: "Since this portion of reason, which we possess, is a gift of God, and consists in the natural light that remained within the whole corruption; this portion conforms to the whole, and differs from that which is in God only as a drop of water differs from the ocean, or rather, as finite differs from the infinite." (Leibniz 1952, Discours §61)). Such a line of thought – eventually – goes back to the biblical myth of creation according to which we have been created in God's image and likeness such that we participate, in our own finite way, in God's mind (cf. Genesis 1).

³³⁷Recently, the disjunctivist account of perception has denied a common element among veridical representations, illusions and hallucinations (cf. Soteriou (2016)). Following this view, these perceptual states do not belong to the same kind. This position might help to understand what is meant by the lack of common ground insofar as Kant would like to emphasise the incompatibility of our and other thinkable minds. Of course, this analogy stays neutral on the question of whether Kant is or is not a

161

argue that the repeated contrast with an intellectual intuition in the B-Deduction seems to suggest that a justification of the categorial structure of our intuitions would have been superfluous if we were to possess such an intellect.³³⁸ Yet in our case, the aforementioned fundamental distinction between the two stems of cognition and the content of their representations forces Kant to undertake that complex line of argumentation.

In support of the insight that the peculiarity of the constitution of our mind is a *prerequisite for transcendental philosophy*, I would like to present the following passage from a draft for FM:

"The foregoing task [to answer the question if metaphysics is possible, T. M.] can be resolved in no other way but this: that we consider it first in relation to the faculties in man, whereby he is capable of extending his knowledge a priori, and which constitute that in him which can be called specifically his pure reason. For if, by a pure reason of a being in general, we understand the power of knowing things independently of experience, and thus of sense-representations, we have thereby determined not at all in what way generally such a knowledge may be possible in him (e. g., in God, or another higher spirit), and the problem is thus undefined." (XX:324 f.)

The question of whether metaphysics is possible translates within the particular framework of transcendental philosophy to the question concerning the possibility of synthetic judgements a priori. The above citation is supposed to emphasise that it is crucial for such an endeavour to determine the particular faculties of *our* pure mind, namely the sources of cognition. If this transcendental approach is not explicitly part of a philosophical approach, the ideal state of cognition does not respect the particular conditions

naïve realist.

³³⁸Having noted that the categories would lack any meaning at all for an intellectual intuition, the B-Deduction continues in support of my claim: "[die Kategorien] are *only* rules for an understanding whose entire capacity consists in thinking, i. e., in the action of bringing the synthesis of the manifold that is given to it in intuition from elsewhere to the unity of apperception, which therefore cognizes nothing at all by itself [i. e. intellectual intuition, T. M.], but only combines and orders the material for cognition, the intuition, which must be given to it through the object." (B145, emphasis mine)

and limits of these sources, as we will observe hereafter in respect to Kant's rationalist predecessors. Having said that, Engstrom's position does not sufficiently consider the contribution of *both* interdependent stems, which is central for transcendental philosophy. In the next section I would like to support and develop this statement.

4.5 Discursive Mind in Comparison

Having pointed out the interdependence of the sensible and intellectual stems in the previous section, I will present two branches of comparison to emphasise the far-reaching consequences of Kant's distinctive approach. The first branch consists of Kant's contemporaries who did not accept the strict distinction, thereby overstating the possibilities of human cognition. The second branch consists of limiting concepts, incompatible with the human mind, that are deployed throughout the critical work to identify the necessary conditions under which we relate to objects. For Kant, in all of these cases the mutual dependency of the sensual and the intellectual faculty forces us to relate to objects in a way that is unlike the creatures under comparison.

Positioning Historical Predecessors

To understand the far-reaching consequences of Kant's position, it is helpful to put it into a historical perspective. Kant took a unique position in the philosophical debate in the 18th century. Neither the empiricists nor the idealists believed that the intellectual and sensual faculties are qualitatively different stems. For *empiricists* distinct sensual impressions, given to our empty understanding, obtain a more complex, possibly conceptual order as we react intellectually to these impressions. In contrast, *idealists* believe that the mind has a priori insight into cognition through awareness by logical analysis of innate concepts; according to them there is just an accidental and not a causal relation between sensations and cognition. Most importantly, both positions deny

a strict distinction between intuitions and concepts, which makes them, according to Ferrarin (2015, pp. 110–3), advocates of the Aristotelian dictum that we think in images.

For instance, for Hume (2009, p. 1.1.1), the two kinds of representations, namely impressions and ideas, differ only in the "degree of force and liveliness, with which they strike upon the mind." On the other hand, the various kinds of knowledge are for Leibniz and Wolff merely logical, differing only in their intensity of clarity. ³³⁹ A further perspective, suggested by Ferrarin (2015, pp. 110–3), is to focus on the early modern rationalists' proposed highest states of knowledge, all being modelled after the "subordination of discursive reason to an intuitive grasp" ³⁴⁰.

For Descartes it is intuition instead of logical deduction that enables the highest kind of knowledge, which is according to his model evident, clear and distinct knowledge, grasping the totality at once and not successively. For Spinoza (2010, II40p2, V25–33) the intuitive intellect, the *scientia intuitiva*, intuitively grasping the essence of individual things, is the highest form of knowledge. For Leibniz symbolic knowledge, paradigmatically applied in mathematics, is the highest form of knowledge, as it allows us to see all compound features *intuitively* at once. 342

I agree with Ferrarin's view, according to which Kant opposed that long and dominant tradition by stressing the *discursive character of cognition*. Rather than giving primacy to intuition, Kant

³³⁹Cf. A44/B61, VII:141 n.

³⁴⁰Ferrarin (2015, p. 113). Similarly, Allison (2004, 78 f.) describes this paradigm as a "form of non-mediated, intuitive representation that grasps the object as it is in itself in its full concreteness."

³⁴¹Cf. "Quod ita faciendum fuit, quia ad mentis intuitum duo requirimus, nempe ut propositio clare et distincte, deinde etiam ut tota simul et non successive intelligatur" (Descartes 1982–91, AT X, 407). Cf. Descartes (ibid., AT X, 368) and Perler (2006, pp. 52–62) for insightful commentary.

³⁴² Cf. Meditationes de cognitione, veritate et ideis, (Leibniz 1989, pp. 23–7), Allison (2004, p. 29). For instance, Leibniz's monads lack windows, i. e. sensible intuition, yet are able to spontaneously present and express the full universe at any time (Monadology §§7, 18, 56, 62, Leibniz (1989, pp. 213–24)). For Kant's implicit critique of this model, see A287/B344 and A230/B283. In Leibniz's view, everything, from innate objects through humans to God, participates in this metaphysical monadic framework; the difference in consciousness is only in degree rather than in kind (cf. Allison 2004, p. 29).

sees cognition as always involving concepts, which are strictly distinguished from intuitions insofar as concepts are mediate general representations and intuitions immediate singular representations (cf. 4.3). The following famous citation turns out to be significant in that respect:

"Instead of seeking two entirely different sources of representation in the understanding and the sensibility, which could judge about things with objective validity only in conjunction, each of these great men [Leibniz and Locke, T. M.] holds on only to one of them, which in his opinion is immediately related to things in themselves, while the other does nothing but confuse or order the representations of the first." (A271/B327)

Kant criticises two opposed views for a failure common to both of them; each prioritises only one stem, which is purportedly able to parse the objects as they are in themselves, while the other stem either confuses the analysis by the intellect (in the case of rationalism) or plays a merely secondary organising role (in the case of empiricism). Because both positions do not sufficiently distinguish both faculties and their generated representations, these positions do not acknowledge the contribution of both stems in conjunction. Instead, they expect a contribution from only one faculty. Hence on both views, only one faculty is the main source of representations; therefore these representations must be both conceptual and sensual. That is well stated by Descartes' highest kind of knowledge mentioned before as well as the various amphibolies Kant identifies. Indeed, an amphiboly, i. e. a confusion of concept and intuition, arises if the source of the representation is not sufficiently taken into account. This leads to an intellectualisation of the appearances by the idealists and a sensualisation of concepts by the empiricists.³⁴³ In contrast, in Kant's picture, there is a strict distribution of tasks over these "two entirely different sources of representation" (A271/B327) while only 'in conjunction' they can lead to objective judgements about objects. Such insights can only be obtained by a transcendental approach, inquiring into the a priori contribution through which the subject can relate to objects of experience.³⁴⁴

³⁴³Cf, A270 f./B326 f.

³⁴⁴Allison (2004, p. 30) also opposes the transcendental approach to the

Comparison with Non-Human Intellects

Having touched upon Kant's unique position within the debate and having related this to his transcendental framework, I would like to consider another comparison that has been mentioned before (s. pages 102ff. and 159). I am talking about the comparison of the peculiar constitution of our mind with alternative accounts of intellect. In §76 these alternative accounts are called 'limiting' concepts' [Grenzbegriffe], which clearly and firmly expresses their incompatibility with the human mind. Yet before we enter the discussion, it is fruitful to emphasise the particular transcendental context, as this methodological measure is not restricted to transcendental philosophy. The comparison with other forms of mind, both higher (like God and angels) and lower (like animals), operates as a leverage for Kant's early modern predecessors to characterise our mind. Along similar lines, contemporary scientists working in the field of Artificial Intelligence aim to determine the particular characteristics of human and artificial reasoning by comparing them.³⁴⁵

Since these kinds of comparisons are not transcendental in terms of their scope and research question, we must therefore point out what is the transcendental purport³⁴⁶, namely that by comparing our mind with other forms of intellect we can highlight the conditions, limits and scope of our contribution to our relation to objects of experience. The result of this type of argument states that the ground of the form of our judgements is not written in the constitution of objects, but rather into the particular constitution of our mind.

In 2.3.3 I have referred to the role of limiting concepts in reconciling the antinomy between a purposive and a mechanical

logical approach of Leibniz and his followers. At the very end of 4.4 I have also laid emphasis on the reason why the consideration of the source of cognition is unique for transcendental philosophy.

³⁴⁵See for instance the seminal paper by Turing (1950). Recall that in our comparison we are dealing with a difference in kind for which it holds "that we have two different kinds of thing wherever we have two things which differ in respect of some nonrelational property" (Boyle 2012, p. 396).

³⁴⁶Recall. "This consideration, which would certainly deserve to be elaborated in detail in transcendental philosophy [...]" (V:401).

Faculties	Limiting Concept	Peculiar Human	
		Distinction	
Understanding	Intellectual Intuition	real/possible	
Sense-dependent	Holy Will	interests/moral law	
Will		·	
RPJ	Intuitive Understand-	mechanical/purposive	
	ing		

Table 4.3: The following distinctions are presented in §§76–7 of the KU.

form of explanation. These limiting concepts are summarised in table 4.3). In that section we noted that the comparison of our mind with other thinkable minds offers the way out of an ontological pitfall: because natural purposes cannot be grasped without considering their full organisation to be ordered in a purposive way, we must presuppose an internal purposiveness at work in these objects. This presupposition, as we also know, implies the presupposition of a supernatural creator. To avoid drifting off into theological terrains, it is crucial at that point of the reconciliation to highlight the *contingent* constitution of our mind.³⁴⁷ The chosen means at that stage of the argument is the comparison with the intuitive understanding in §77, which has been elaborated in the section mentioned above.

At first I would like to shed light on the comparison with the *holy will*. The account of a "good and pure will" (IV:393, emphasis mine), being good without limitation, proved crucial in the first part of the *GMS* to develop the status of moral judgements for "citizens of two worlds"³⁴⁸. Influenced both by sensual interests, needs and desires as well as by the moral law of practical reason, our intentions do not necessarily accord to that moral law, since sensibility is not determined by that law. While acts of the "holy

³⁴⁷As we will see on page 194, 'contingent' refers to the thinkable non-being of the attributed object. In this case, the constitution of our mind is called contingent insofar as its non-being is thinkable.

³⁴⁸Although this is a beloved phrase among Kant's interpreters, it cannot be found in the corpus. Yet Kant writes in the GMS that, depending on the standpoint, we can regard ourselves as part of the world of sense [Sinnenwelt] or as part of the intelligible world [Verstandeswelt] (cf. IV:452 f.).

will" (IV:414) are moral by necessity, they are not necessitated. 349 For us the situation is different: our acts are not necessarily in accordance with the moral law. Since this moral law is objectively necessary, for us as much as for holy wills, we thus need to necessitate our will by imposing the moral law upon it – against any sensual distractions. 350 This is reflected in the famous categorical imperative according to which you must be able to will that the subjective maxim of your action could become a universal moral law. Since we, unlike a holy will, must necessitate our actions to become moral, we can conclude that our actions are influenced both by sensibility and by reason.

When it comes to the account of the *intellectual intuition*, we have already noted in 4.4 that such an intellect produces and cognises objects through the spontaneous act of self-awareness. 351 Rather than recalling the previous remarks I would like to push the discussion one step further by integrating a discussion of the short correspondence between Kant and Maimon, who stood out as a critic in Kant's assessment for understanding Kant's objectives better than any other of his critics.³⁵² Maimon mainly doubts the validity of Kant's justification of the application of categories for the synthesis of the sensual manifold and, in contrast, seeks the solution in overcoming the dualistic structure at work in Kant's argument. In order to do so, he goes back to the Leibniz-Wolffian framework of the human mind according to which sensibility and understanding flow from the same cognitive source. 353 As a result, for Maimon, the distinction between the two stems is one of degree rather than of quality, such that there

³⁴⁹ Kant uses the neological compound Seinsollen (V:403) to denote morality by necessity. Cf. Allison (2011, p. 44): "[F]or Kant necessitation arises only in the case of human (or other finite rational) wills, for which what is objectively necessary is subjectively contingent."

 $^{^{350}}$ Cf. IV:412 f.

 $^{^{351}}$ See 2.3.3. The following remark from the $MetL_1$ supports this account of an intellectual intuition: "weil es in sich selbst Causalität, das Princip und den Quell aller Möglichkeit der Dinge erkennt; so erkennt es alle Dinge, sofern es sich selbst erkennt. Also ist sein Verstand völlig independent von allen Gegenständen der Erkenntnisse." (XXVIII:328)

³⁵²Cf. XI:49. See Franks (2005, pp. 52-61) for a penetrating treatment of Maimon's alternative suggestion and Kant's anticipated answer in the B-Deduction.

 $^{^{353}}$ Cf. note 342 on page 163 for Leibniz's account. See also my comments on Engstrom on page 159.

is only a quantitative difference in the degree of completeness between human and divine reason. That position is in line with Engstrom's and Leibniz's account. Following Maimon (2004, 63 f.), this would solve the problem caused by Kant's initial setup, which has been discussed extensively in this chapter. Here is Kant's response, written while he was in the process of composing the KU:

"even if we would be capable to have an intellectual intution [...], judgements according to the nature of our understanding, in which a concept like 'necessity' is available, could not be stated; because it would always be a mere perception, that e. g. in a triangle two sides taken together are bigger than the third, rather than a necessary feature of it. [...] though we could only judge any understanding by our understanding and we could only judge intuition by our intuition. [...] [I]f we could demonstrate that our *cognition* of things itself were only possible under certain conditions, it were not merely the case that all other concepts of things (which are not determined in such a way) empty for us and could not serve any cognition, but also all data from the senses to a possible cognition would never represent objects without them [the conditions, i. e. the categories, T. M.], not even lead to such a unity of consciousness, which is necessary to obtain cognition of myself (as object of inner sense)." (XI:51 f. (translation mine) 354)

 $^{^{354}\}mathrm{A}$ historical note: His former student and friend Marcus Herz mediated between Maimon and Kant. Although the letter was addressed to Herz, it was written for Maimon in response to his monograph Versuch über die Transzendentalphilosophie sent over to Kant by Herz., 26/05/1789. Due to its complicated nature, I will present the original citation: "wenn wir auch einer intellectuellen Anschauung fähig wären [...] Urtheile, nach der Natur unseres Verstandes, in dem ein solcher Begrif, als Nothwendigkeit ist, angetroffen wird, gar nicht statt finden könnte; Denn es würde immer nur bloße Wahrnehmung seyn, daß z.B. in einem Triangel zwei Seiten zusammengenommen größer seyn als die dritte, nicht daß diese Eigenschaft ihm nothwendig zukommen müsse. [...] wir können aber allen Verstand nur durch unseren Verstand und so auch alle Anschauung nur durch die unsrige beurtheilen. [...] [W]enn wir darthun können, daß unser Erkenntnis von Dingen selbst das der Erfahrung nur unter jenen Bedingungen allein möglich sey, so sind nicht allein alle andere Begriffe von Dingen (die nicht auf solche Weise bedingt sind) für uns leer und können zu gar keinem Erkenntnisse dienen, sondern auch alle data der Sinne zu einer möglichen Erkenntnis würden ohne sie niemals Obiecte vorstellen, ja

Roughly, Kant answers that Maimon's suggestion would not make a difference, at least not for a discursive understanding like ours. Whatever the forms of sensibility are like, they must be "in accordance with the categories" [den Kategorien gemä β] (B 152) if we are able to make sense of the sensual impressions. ³⁵⁵ Even if we were in the situation of having an intellectual intuition, this would not change the spontaneous role of the understanding and its conditions for the pursuit of cognition.

Echoing the famous slogan from the Metaphysical Deduction in the last quoted sentence (cf. 4.4), our concepts would be empty if the intuitions did not accord to the categorial order of our intellect, since they would lack a reference to objects of experience. Like the second part of the B-Deduction aims to show, this is the case since the sensual manifold is already united by the synthesis speciosa such that the manifold agrees a priori with the forms of judgement, or, as Longuenesse (1998, p. 243) puts it: "the effort toward judgement affecting inner sense." This is necessary since for us, we can *only* think objects of experience if the intuitions are brought into the unity of apperception. Thus these intuitions must accord with the rules of the thinking faculty, a condition which would not be fulfilled if we were equipped with an intellectual intuition. It is, as Kant emphasizes in Von einem neuerdings erhobenen vornehmen Ton in der Philosophie (1796) (Ton), a matter of "Herculean labor of self-knowledge from below upwards" (VIII:390) to discursively express our cognition rather than mystically – "by a single piercing glance" (VIII:390) - entertain our intuitive intuition. Therefore, Kant believes that our possession of such a faculty would not contribute to the generation of cognition.

Geometry and the Understanding

Insofar as I am concerned, this seems sound from a Kantian perspective, yet in the letter Kant draws on an example that complicates the matter. I am referring to a geometrical principle presented initially in the Metaphysical Exposition of the Account

nicht einmal zu derjeningen Einheit des Bewustseyns gelangen, die zum Erkenntnis meiner selbst (als obiect des inneren Sinnes) erforderlich ist." 355 Cf. B72.

of Space in the Aesthetics of the KrV; in a triangle two sides together are always greater than the third. Geometry, taken as the science of the features of space³⁵⁷, according to Kant does not depart from a set of axioms, principles and definitions, and therefore it does not count as a discursive science. Rather, these axioms, principles and definitions are derived from the a priori intuition such that the principles of geometry are grounded in the pure intuition of space. As a result, one might get the impression that we indeed are equipped with a productive (or intellectual) intuition, as Maimon suggests, since we produce geometrical objects in accordance with their principles by the sensible faculty. Yet this would oppose Kant's intention in the letter, since he meant instead to stress the peculiarity of the dual stems of the human mind.

At this stage it is important to highlight the interesting twist of plot in the second part of the B-Deduction. This is, as I assume, the passage Kant alludes to in the letter. In §24 Kant refers once more to the intuitive source of geometrical figures, yet this time not to highlight the operation of the intuition, but to highlight the influence of the understanding on intuition:

"We cannot think of a line without drawing it in thought, we cannot think of a circle without *describing* it [...] The understanding therefore does not find in this [i. e. space, T. M.] some sort of combination of the manifold already in inner sense, but produces it [bringt sie hervor], by affecting inner sense." (B154³⁶⁰)

Here it is stated explicitly – and differently from the Aesthetics, as confirmed in the famous footnote to B160 f. – that the intuitive manifold in the spatio-temporal continuum is united by the understanding. This is the way out of the paradoxical situation described earlier in that paragraph, namely that intuition seemed both active and passive, because we intuit ourselves while the

³⁵⁶Cf. A25/B39. The geometrical principle serves as a theorem in Euclid (I, 20) and is also mentioned in A164/B205.

 $^{^{357}}$ Cf. A25/B40.

³⁵⁸Cf. A718 f./B746 f.

³⁵⁹Cf. Quarfood 2011, p. 148.

³⁶⁰Cf. V:364 f.

senses are being affected by us.³⁶¹ Kant dissolves this confusion by restoring his initial theory of the distribution of receptivity and spontaneity over the two stems of our mind (cf. 4.3); insofar as the spontaneous understanding is able to synthesise the intuitive manifold, these intuitions must accord with the conditions of the understanding, i. e. the categories.³⁶²

Even though quantity, $Gr\ddot{o}\beta e$, schematised as the "successive addition of homogeneous unities" (A142/B182), definitely plays a role in geometrical figures³⁶³, the letter to Maimon points to another category, namely the category of necessity, without which the insight into the principle would be "mere perception", blosse Wahrnehmung (XI:51).

This discussion of the exchange with Maimon was meant to present the argument behind Kant's strict distinction between a sensual and an intellectual stem. We have shed light on the main step, which is in my view the influence of the discursive understanding on sensibility such that the sensual manifold must accord a priori with the forms of judgement. This does not help to explain the possibility of this particular constitution of the mind, as Kant notes explicitly, since that answer demands an external view on our own mind which is inaccessible for us (cf. note 296 on page 148). Yet we know that if sensibility were not determined by the understanding, we would not be in the position to parse the intuitions with our discursive understanding.

The distinction between a receptive and a spontaneous faculty thus removes any appearance of common ground between the human and thinkable divine intellects. As a result, they become limiting concepts to point out the particular constitution of our contrasting faculties rather than ideal cognitive states.³⁶⁴ The discussion of the correspondence with Maimon reveals that the peculiarity of our mind includes not just the two fundamentally different stems, but also their complex interplay such that the sensual manifold agrees a priori with the form of judgement. The

 $^{^{361}}$ Cf. B153 f.

³⁶²Cf. Longuenesse (1998, p. 253): "What is acquired are categories as concepts of the unity of synthesis achieved with a view to analysis according to the logical functions of judgement."

³⁶³Cf. ibid., 271 f.

³⁶⁴Cf. Allison 2004, p. 77.

comparison with Kant's early modern predecessors revealed how Kant's transcendental approach warns against overstating the highest kind of cognition, since cognition must involve a synthesis of intuitive and conceptual representations.

4.6 Conclusion

Our main incentive for considering the account of discursiveness is the recurring and central characterisation of our understanding in the KU as discursive. This insight, which is arrived at by way of a transcendental inquiry into the sources of cognition, is crucial for the following reason: taken at face value, reflection is the search for general representations. General representations are "that form required for the power of judgement" (IX:94). When it lacks appropriate general representations, the power of judgement is incapable of judging, i. e. subsuming representations under a concept, therefore the reflective activity must come into play to search for concepts. Reflection is guided by the principle of purposiveness stating that nature is organised in accordance with our discursive faculty. In other words, to arrive at concepts by way of reflection, we are guided by the presupposition that nature is organised conceptually for us, i. e. nature entails features by way of which objects can be determined. This chapter sought to inquire into the peculiar character of our mind to gain a better understanding of the consequences of the principle of the RPJ.

In order to do so, we first had to present Kant's basic account of human cognition, which is, in a transcendental manner, traced back to the two stems of our mind. Distinguishing a sensible and an intellectual stem with fundamentally different tasks and generating fundamentally different kind of representations, we stressed their interdependence. This means that both stems, the passive sensibility and the active intellectual faculty, must contribute to cognition, otherwise our concepts, lacking reference to objects of our intuitions, are blind. For clarification we presented the comparisons with other possible minds and with different early modern accounts of the highest degree of cognition to point out Kant's unique position within the debate. Moreover, this

173

was necessary to avoid the impression that the emphasis on the account of discursiveness in the KU implies an asymmetrical primacy of the understanding. This is not the case, as I have stated most clearly in my critical discussion of Engstrom (2006) on page 159.

Following Kant, objects of our experience are continuously determined, since we can determine them in any respect: colour, size, shape, etc. One of the consequences of this position is that objects can be determined in many respects. Furthermore, a particular determination, for instance in respect to its size, is only a partial representation, namely one that does not regard all of the other possible features, like colour, shape, etc. Therefore, features that determine an object are always partial. We have seen in 4.3 that the account of a ground of cognition, which is the feature by way of which the object is cognised as an instance of a certain class, adopts this consequence: it is sufficient for the determination of an object or concept to identify the ground of cognition in order to determine the object. For early modern rationalists, in contrast, the highest account of cognition entails a full intuitive grasp of all the features, as we saw on page 162f. A transcendental inquiry into the source of cognition is able to state the impossibility of such an ideal for us. Where Kant mentions the peculiarity of our mind, it always refers to the interdependence of the sensual and intellectual stem, as stated most vehemently in the interaction with Maimon.

Exploring the consequences of the discursive character of our understanding for the application of our RPJ, we should moreover recall the basic distinction between the two types of representations, namely intuitions and concepts. I have argued that the primary distinction depends on the *mediacy* of these representation: intuitions are representations which immediately related to objects they represent, concepts are representations which mediately refer to objects through features. As a result, intuitions are singular and not repeatable, whereas concepts are general and repeatable. Therefore the concept refers to a possibly infinite amount of objects whereas intuitions refer to one and not more than one object. Furthermore, due to their generality, concepts cannot be identical with objects, but are always more general than the objects they refer to. This means that nature must be

organised in accordance with the form required by the power of judgement such that nature presents a sufficient degree of homogeneity and heterogeneity to discover repeatable features.

Finally, the logical relation between concept and feature implies a taxonomy of concepts which is finite at the top and infinite at the bottom (cf. 4.3). What is true of higher, more general concepts is necessarily true of subsumed concepts. We will see in chapter 6 that reason pushes to complete this conceptual order, even though it follows from the set-up presented in this chapter that our concepts are never in total agreement with the objects they refer to and that our grasp of nature is never complete. As I will argue in that chapter, the RPJ mediates between the demands of reason and the restrictions due to the particular constitution of our mind, since the leading transcendental principle presupposes nature's responsiveness to the particular constitution of our mind.

Together with the former chapter we have established firm ground in the KrV. The concept of nature and of discursiveness play a crucial role in my reading of the KU. The account of nature does not refer to the actual objects of experience, but to the sum total of all possible objects of experience, such that both the objects we do cognise and the objects we can cognise are ordered purposively in accordance with our discursive faculty. Thanks to the current chapter we can describe discursiveness as the dependency of cognition of concepts within the particular interplay between the understanding and sensibility. This preparation allows us to return to the KU and face the transcendental issue.

Part III

Reflective Power of Judgement

Chapter 5

The Principle of Purposiveness and its Deduction

5.1 Orientation

I have stipulated repeatedly that my proposed interpretation of the KU centres around the act of reflection guided by the principle of purposiveness. The Transcendental Deduction of this principle in part V of the published Introduction offers an accurate account of the problem we would face in the absence of this principle. In that case we would lack any "well-grounded expectation" (XX:212) of the agreement of our empirical representations with the objects of nature. As I am not aware of any other presentation in the KU of the threat to the unity of experience as concise as this Deduction, I have decided to dedicate the current chapter to it. The issue touches the heart of the transcendental issue I seek to emphasise in the overall study and therefore appears more than relevant in light of that aim.

To situate the threat to the unity of experience within the previous part, we could do with a quick retrospective. In chapter 3 we

described the object of cognition, namely nature, having two interdependent aspects, namely the object of experience (nature_M) and the lawfulness this object must accord to (nature_F). Secondly, we introduced a distinction between an empirical and a transcendental level, not in respect of the kind of knowledge, but in respect of our epistemic access to these levels. On the one hand we have a priori insight into the most general of nature's laws, widely known as the categories; on the other hand our insight into empirical laws of nature depends on experience. In the chapter 4 we gave a broad account of discursiveness in order to determine the scope of our peculiar cognitive faculty; we saw that, on a Kantian account, cognition always involves concepts, i. e. general mediate representations, as well as intuitions, i. e. singular immediate representations. These two kinds of representations are products of two fundamentally different stems of cognition, which, however, are interdependent and intertwined.

With that in mind, we are better equipped to discuss the threat to the unity of our experience. This argument adopts some of the distinctions made previously: whereas we can determine the most general laws of nature a priori, the special empirical laws of objects of experience cannot be determined by these general laws or by further a priori principles, making the possible infinite amount of necessary laws *contingent* (= not a priori) for us. Yet this is not a comfortable place to rest, as the continuous and coherent unity of experience is threatened by this contingency; hence the RPJ must presuppose, for the sake of its own use, the necessary lawful unification of empirical objects, even though these objects appear contingent to us. This presupposition is, in other words, the principle of the purposiveness of nature, stating that nature is organised for us in concert with the discursive form of our mind, thus securing the experience of empirical objects in the face of the contingency of nature's possibly infinite manifold of empirical laws. Only insofar as we apply this principle can we apply the RPJ. The need for guidance by this regulating principle follows from the restriction of the role of the understanding and the peculiar discursive character of our cognitive faculty, as recalled above and discussed in part 2.

First of all, in 5.2 I will discuss the task of a Deduction of the principle of purposiveness as well as this very principle itself.

Subsequently, in 5.3, I will do my best to walk the reader through the Deduction. Finally, in 5.4, my reading of this concise argument will be contrasted with another conflicting treatment available in the literature. In conjunction with its following chapter the current chapter is meant to offer a stable account and justification of the principle of purposiveness and its role.

Aim of the Transcendental 5.2 Deduction

A transcendental investigation is concerned with the a priori contribution of our mind that enables our relation to objects of experience. 365 It is not enough to merely state the dependency on a principle a priori (quid facti); additionally a justification of the principle's use must be provided (quid juris) in the absence of the possibility of an empirical justification. ³⁶⁶ Such a justification is provided in a Transcendental Deduction. When it comes to synthetic a priori principles we cannot point towards empirical evidence, but we need a statement justifying the application of the principle in our relation to objects of experience in general.

As is clarified in the fifth section of the published Introduction, which we are examining here, we justify a claim if we can find, among our cognitive faculties, the ratio [Grund] for judging in a particular way (here: reflective judgements). 367 This is the only way we can justify the dependence on the principle that is 'revealed' in aesthetic judgements and that is manifested in maxims for inquiring into nature. Moreover, in comparison with the EEKU, the Deduction can be considered the main innovation

 $^{^{365}\}mathrm{Cf.}$ "A transcendental principle is one through which the universal a prioricondition under which alone things can become objects of our cognition at all is represented." (V:181) I have already provided a more extensive account of transcendental philosophy in 1.3.

 $^{^{366}\}mathrm{Cf.}$ A84/B116. See Henrich (1989, 33 f.) for an insightful discussion of Kant's adaptation of a common juridical practice in the Holy Roman Empire of providing deductions in order "to justify convincingly a claim about the legitimacy of a possession or a usage".

 $^{^{367}\}mathrm{Cf.}$ V:182. See also e. g. B159.

of the second (published) Introduction to the third Critique. ³⁶⁸ Its importance for the KU cannot be overstated. ³⁶⁹

To identify the task of the Deduction, we should consider what Kant notes immediately *after* the final step of the Deduction. There we encounter a genuine threat to the unity of our experience:

"In order to be convinced of the correctness of this deduction of the concept that is before us and of the necessity of assuming it as a transcendental principle of cognition, one need only consider the magnitude of the task of making an interconnected experience out of given perceptions of a nature that in the worst case contains an infinite multiplicity of empirical laws, a task that lies in our understanding a priori." (V:184)

The "a priori task" (V:184) ascribed to the understanding is to generate a coherent experience out of impressions, or as Longuenesse puts it, "the effort toward judgement affecting inner sense"³⁷⁰. Along these lines we read elsewhere that our mind demands "unity, including lawfulness" (V:404) while, according to Longuenesse (1998, p. 43), our understanding always strives for 'experience as a whole'. The understanding, as the faculty of rules, is occupied ceaselessly, "always busy poring through the appearances with the aim of finding some sort of rule in them." (A126)³⁷¹ This is not a mere psychological fact about us, but a normative demand, as the KU states clearly, since "we have to occupy ourselves" (V:185) with the discovery of higher principles for the many kinds of causality in empirical nature.

³⁶⁸The threat to the unity of experience is mentioned in XX:203 f. The modal tension between nature's lawfulness and the possible contingency of our empirical knowledge is discussed in §70 (V:386) and §76 (V:404).

According to Allison (2001, p. 36), the Deduction was missing in the *EEKU* for the reason that the preliminary Introduction presents the principle as sheerly "tautological" (XX:211 n.). In my view this is misleading, as Kant clearly states within this particular context that the principle *looks* tautological and logical at first sight, but *actually* allows us to "apply logic to nature" (XX:212 n.). According to Peter (1992, pp. 53–65), the RPJ and its principle are not established before the Deduction is delivered. ³⁶⁹Cf. V:169.

³⁷⁰Longuenesse 1998, p. 243.

³⁷¹Cf. V:183–5, 220, XX:204, 211, 214, 216 and Rodríguez (2012, p. 191).

The application of the most general laws of nature to the sensual manifold has been justified in the first Critique's Transcendental Deduction, yet following the above citation, the current scope is different. Nature is considered here insofar as it entails a "possible [allenfalls] infinite manifold of empirical laws" (V:184). One could assume that this does not belong to transcendental philosophy, since the noted problem is empirical; yet independently of experience we can think of the possibility of an infinite manifold of empirical laws. This option opens up a serious problem for the unity of experience: Since our cognitive faculty is *limited*³⁷², we would not be able to parse these infinite empirical laws of nature and this would stand in the way of the possibility of a coherent experience. This is the main issue that must be overcome in the Deduction: the success of the Deduction depends on the ability to secure a coherent experience in the face of nature's possibly infinite manifold of empirical laws.

Regulative Status

Due to the regulative status of the principle of purposiveness, one might suggest that the principle is merely auxiliary, and, in consequence, the Deduction is not concerned with a condition for the possibility of our relation to objects of experience in general. For that reason, Horstmann (1989, p. 168) claims that, in terms of the first *Critique*, the principle of purposiveness is a logical, i.e not a transcendental, principle. Yet on the description of the 'transcendental' above, it does not follow that the predicate 'transcendental' is restricted to constitutive principles, and therefore I do not see a reason to accept Horstmann's position.

A transcendental investigation is concerned with the a priori contribution of our mind that enables our relation to objects of experience, regardless whether that contribution is regulative or constitutive. Indeed, Kant promptly counters such a suggestion during the first sentences of section V, comparing the category of substance with the principle of purposiveness. This might, once more, leave us in muddy waters if we take him to be saying that the aforementioned principle has the same status as the

³⁷²Cf. 4.5.

³⁷³Cf. V:181.

categories. Yet we should bear in mind that, more than once, we can read how the principle is *not* determining, like the categories and the moral law, but *regulative*. Hence the question arises: how should we understand the comparison with the category of substance?

"For the concept of the objects insofar as they are thought as standing under this principle [of purposiveness, T. M.] is only the pure concept of objects of possible experiential cognition in general, and contains nothing empirical." (V:181 f.)

Both the categories and the principle of purposiveness agree about the scope of their application, as they both apply to the pure account of an object of possible experience, regardless of their empirical determination. Within the current inquiry, the account of nature is supposed to highlight this abstract account of an object; only a few sentences below, Kant refers to this account of an object as 'nature in general' (V:182), standing in opposition to empirical nature. Nature in general or nature_M is, in terms of 3.3, the thinnest possible account of matter, allowing the widest extension of possible objects. Consequently, the Deduction is supposed to justify the application of the a priori principle to nature in general, regardless of any empirical features, in order to guide reflection. Anticipating chapter 6, it is worth noting an important difference to the maxims of reason: these cannot be justified due to lacking a "congruent object in experience" (A661/B689).

Maxims of the RPJ

Having clarified the status and the scope of application, we must clarify the principle to be justified before we can proceed to discuss the justification itself. A quick reference to the a priori maxims of the power of judgement as manifestations of the principle of purposiveness is said to be sufficient here.³⁷⁴ One might think here of Leibnizian principles like lex parsimonae, lex continui in natura, principia praeter necessitatem non sunt multiplicanda, but also of the three maxims of the sensus communis, namely to

³⁷⁴Cf. V:182, 185, 376, 383, XX:204 n., 210.

think autonomously, emphatically and coherently 375 as well as the maxims provided in the Dialectics of the KtU, "for the sake of the cognition of natural laws in experience, in order to arrive by their means at concepts" (V:385 f.). 376 In addition, these "maxims of the power of judgement" (V:182) seem to be related to the logical maxims of reason: principia praeter necessitatem non sunt multiplicanda resembles the maxim of homogeneity, namely principle-reduction 377 , lex continui in natura resembles the maxim of continuity, namely absence of gaps, etc. 378 All of these maxims demand that nature presents the greatest manifold of phenomena while being continuously and thoroughly unified in the great chain of being, allowing us to reflect on "nature as determined by a manifold of particular laws" (V:182). This is, in other words, the principle of purposiveness.

These maxims have, according to Kant, the status of *normative hypotheses*, since they prescribe how to judge, rather than describing how we judge, adding further proof that this principle is not psychological, i. e. empirical and contingently depending on the subject's psychological disposition, but *transcendental*.³⁷⁹ As expectations of nature's organisation, these maxims indicate the need of the RPJ for coherent experience, apart from the

³⁷⁵Cf. V:294 and footnote 147 on page 77.

³⁷⁶Cf. A227/B279, IV:468, V:185, XI:441, XX:212. For further references, cf. Giordanetti (2009, pp. 431–5), Watkins (2001). Kant ascribes these principles to his predecessors, 'the philosophers' (A651/B679). The maxim of continuity is for instance traced back to Leibniz and Bonnett (Cf. A668/B696).

³⁷⁷This is Ockham's razor, cf. A652/B680, V:185, VIII:96 and page 7 of the Introduction.

³⁷⁸See page 215 for an overview of reason's maxims. Kant's comments on reason's maxims are in line with the application of RPJ's maxims: "However, they [these maxims, T. M.] are all united simply in this, that they do not permit anything in empirical synthesis that could violate or infringe the understanding and the continuous connection [Zusammenhange] of all appearances, i. e., the unity of its concepts. For it is in this alone that the unity of experience, in which all perceptions must have their place, is possible." (A229 f./B282) Hence, the maxims express the understanding's expectation of the continuous coherence of all representations.

³⁷⁹Cf. V:182 and Peter (1992, p. 65). I do not think that the normative status of these maxims is the *only* reason why the principle is transcendental, like Bojanowski (2008, p. 35) seems to be suggesting. Even if they were descriptive, a Transcendental Deduction would still be required as the a priori status of the principle cannot be justified any other way.

determination of nature_M in categorial respect by the understanding. While the maxims depend on empirical observations and concepts, they are at the same time a manifestation of the transcendental principle insofar as the subject, encouraged by these "pronouncements of metaphysical wisdom" (V:182), seeks unity in the empirical manifold.³⁸⁰ That is how the transcendental principle and these metaphysical maxims relate to each other.

Rather than challenging these maxims, Kant's contribution consists in justifying the principle preceding these maxims that "manifestly" [offenbar, V:182] point towards their common source, the principle of purposiveness. For instance, the lack of leaps in nature is backed by the responsiveness of nature to the discursive character of our mind, because we cannot make sense of stochastic behaviour like superposition. Fully stochastic behaviour lacks a ground of cognition to characterise regularity and therefore is not suitable for an inquiry. Recall, for instance, how Schrödinger at the outset of the Introduction resisted the paradoxical situation in which microscopic phenomena are indeterminate in terms of classical physical concepts. Hence, we should presuppose nature's continuity during our inquiry into nature. For that reason Kant states that only insofar as the principle is at work are we able to inquire into nature.³⁸¹ In other words, Kant provides a justification of the source [Ursprung, V:182] behind this selection of maxims.

Account of Purposiveness

The source is the principle of purposiveness. Teleological explanations are usually associated with one of Aristotles' four causal explanations, namely the *causa finalis* or "the end, that for the sake of which a thing is done" which together with the other three explanations offers on Aristotle's account a full knowledge and understanding of the phenomenon under consideration. Standing in competition with a mechanistic explanation, the Aristotleian account of a substance having a form, qualities, a *telos*,

³⁸⁰Cf. Goy 2017, p. 42.

³⁸¹Cf. V:186.

³⁸² Physics. 194b, 198b5, Metaphysics, 1013a33 in Aristotle (1995).

among others, became suspect among philosophers in the early modern period. ³⁸³ Instead, these philosophers, lead by Bacon and Descartes, prefer a simple mechanistic explanation of the motion of extended parts in terms of general natural laws. This is not a reduction of Aristotle's four explanations to the *causa efficiens*, because these universal natural laws do not explain single events a posteriori, like Aristotle's causes, but rather predict and determine *all* movements in nature. ³⁸⁴ Although Leibniz (1989) in §22 of the *Discours de Métaphysique* acknowledged teleological alongside mechanical explanations, since they are less detailed, technical and therefore easier to generate, the primacy of the more fundamental mechanical explanations did not change, because the mechanical explanation "goes much deeper and is in a measure more immediate and a priori" even though it "is also more difficult when we come to details".

To avoid these Aristotelian associations, it is important to remind ourselves, first of all, that after the Copernican revolution Kant avoids any kind of ontological project by focussing on our own a priori contribution to our relation to objects instead of the object's essential characteristics. Secondly, we should recall the *subjective* status of the principle of purposiveness such that the purposiveness is not ascribed to representations of objects, like the categories are ascribed to objects in judgements³⁸⁵, but rather enables us to reflect on empirical regularities in nature in the first place. In support of this claim, I aim to identify in the current section the particular Kantian account of purposiveness, which is less concerned with purposes than with the type of causation based on concepts. To begin to appreciate that thought, we might have a first look at Kant's account of a purpose:

"the concept of an object insofar as it at the same time contains the ground of the reality of this object" (V:180). 386

³⁸³See Ott (2009, pp. 39–43) for an elaboration of the early modern rejection of Aristotelianism (or putting it less inaccurately: scholastic philosophy).

³⁸⁴ Vlastos (1969, p. 294) points out that for Aristotle a cause ("to dia ti (the because)") answers to the question 'why?' in regard of a single event and not, like in the early modern period, to the question 'how?' in regard of a natural law.

 $^{^{385}}$ For instance, "A is the cause of B", "C is a substance", etc.

³⁸⁶Cf. V:192, 227, XX:232. In V:220 is stated, differently, that the caused object is the purpose, yet to overcome that problem, I will, with Euler

In 4.3 we characterised a concept as a representation mediately referring to a possible set of representations. In view of this role of a concept, we must stipulate that the concept is not just a necessary condition for recognising an object, but at the same time the cause or the ground of the reality of the object. Thus, we are dealing with an object that can only be caused by a concept while the concept (or purpose) is the "ground of determination [Bestimmungsgrund]" (V:220) of its effect, namely the object. If we think of artefacts, it is not unusual to state that the concept is the cause of the object. Imagine a horologist building a clock. In order to proceed, she needs to have, at the very least, a concept of a clock, for example "making known the time of day" (R 2292, XVI:302). Without such a concept, the horologist would not be in the position to make an object that does what it should do according to its concept. In this way the concept causes the object.

Analogy with Practical Purposes

We find a similar pattern in regard of the will, i. e. the ability to determine oneself to act.³⁸⁷ Having a will, we are able to determine our actions deliberately through purposes, i. e. "what serves the will as the objective ground of its self-determination" (IV:427). Mainly to elaborate the account of purposiveness, Kant draws this analogy with practical purposes in $\S 10$ of the KU. In §10 Kant writes that an object, a state of mind or an action can be purposive [zweckmäßiq], i. e. a causality in accordance with purposes, without presupposing insight into a particular purpose.³⁸⁸ This is crucial for understanding the account of purposiveness. We can interpret an action as an intention only if we ascribe intentionality to that subject, while it is not necessary to have insight into the causes of that particular action. Kant distinguishes here, in line with the distinction between a formal and material account of nature³⁸⁹, between the form (lawfulness) and matter (purpose) of the nexus finalis. In other words, we

^{(2015,} p. 2745), take both definitions as an objective and a subjective aspect of the same term.

³⁸⁷Cf. IV:427.

³⁸⁸Cf. V:220.

 $^{^{389}}$ See V:220 and 3.2.

can ascribe purposiveness to a subject while remaining agnostic towards the particular purpose of that subject.

I have taken up this analogy to introduce the account of purposiveness. While the view that human beings act for reasons is widely recognised among philosophers, the account of the purposiveness of nature is controversial, especially in light of the overthrow of Aristotelian physics by the early modern thinkers. Yet Kant's insistence on the necessity of the contribution of the principle of purposiveness to experience does not imply a return to the Aristotelian account of a causa finalis by ascribing intrinsic purposes and goals to substances.³⁹⁰ We are rather dealing with objects whose causation can only can be explained in terms of a concept and not by a previous state of nature in accordance with the laws of movement. Accordingly, Kant defines purposiveness as the "correspondence of a thing with that constitution of things that is possible only in accordance with purposes" (V:180, translation modified).³⁹¹ Hence, purposiveness concerns the causality of purposes while not entailing anything about the purpose in play. This is in line with the account of the will given previously.

Yet I must admit that the analogy between the purposiveness of nature and the purposiveness of the will is not free of problems; while we can potentially reconstruct the motivations of agents for a certain action, we do not and cannot have insight into nature's purposes – the purposiveness is without a purpose. Sure, we could deliberate about the evolution of intelligence, yet the chameleon does not decide to adapt to the surrounding colours, the bee does not decide to pollinate the apple blossoms and the ectomycorrhizal symbiosis is not a decision by (elements of) the tree, the forest or the mycorrhizal fungi. It is their form of life. Rather than a weakness of the analogy, I assume it points out effectively what is peculiar of the KU's account of the purposiveness of nature. In my eyes, Zuckert (2007, p. 81) says too little when she characterises

³⁹⁰ Goy (2017, p. 40) takes 'purpose' as a 'function' that exists for the sake of something (e. g. 'to fly'), yet I would restrain from ascribing an Aristotelian account of purpose to Kant. Similarly, Watkins (2009, p. 120). See also footnote 179 on page 91.

³⁹¹Cf. "the causality of a concept with regard to its object is purposiveness forma finalis." (V:220, cf. XX:216) A grammatical note: while [-mäβig] transforms Zweck into an adjective, adding the suffix [-keit] transform the adjective zweckmäβig into a noun, namely Zweckmäβigkeit.

purposiveness as "an object that seems to be useful for a purpose [although, T. M.] we do not know for which purpose, do not claim that it is in fact so useful", since she leaves open the possibility that we can know what it is useful for, thereby not considering the differences to technical and relative purposiveness.³⁹²

At this point one should recall judgements of taste, which demonstrate most clearly that we remain ignorant about the intention behind the order of nature in toto. The object of our aesthetic judgement is, as Kant expresses himself, "without any purpose, merely an intrinsically yet contingently manifested purposive correspondence with the need [Bedürfnis] of the power of judgement" (V:347, translation modified). This purposiveness without a purpose is distinct from the will insofar as we can, up to a certain point, understand the latter. In contrast, we are fully ignorant when it comes to the purpose of nature ³⁹³; we can merely state that nature is responsive to the particular character of our mind, but we must halt at this point and cannot assume a further purpose of nature (for instance, allowing us to form concepts or motivating us to act morally). ³⁹⁴ Otherwise we could acknowledge that nature is devoid of a purpose.

5.3 Argument of Transcendental Deduction

To ease the comprehension of the Transcendental Deduction of the Principle of Purposiveness, I have distinguished a total of seven steps, which I will present and comment in the following.³⁹⁵

³⁹²This critique also applies to Düsing (1968, pp. 11, 26, 28–37) who explicitly refers to nature's amenability to our practical needs. Kant calls this mode of purposiveness 'relative' in §63, and adds that such a blunt teleological account exceeds our judgement.

³⁹³Cf. note 23 on page 32.

³⁹⁴The epistemological approach might be tempted to deliver such an interpretation, cf. 1.4.1.

³⁹⁵ This Transcendental Deduction starts in the very last sentence on page V:182, immediately after Kant formulates the purpose of a Transcendental Deduction, and lasts till the end of that paragraph in V:184. This is the sentence before "in order to be convinced of the correctness of this deduction ..." (V:183).

While the number of steps and their exact formulation might be matter of debate, I think that the core argument is available in my reconstruction, stating that the principle of purposiveness solves the contingency of empirical laws that threatens the unity of experience. Moreover I believe this deduction to be Kant's strongest expression of the need for a transcendental principle of the RPJ. The first two steps are drawn from theorems discussed in chapter 3 and 4, while the subsequent steps follow the argument of the deduction itself.

- I. Nature in general is subsumed under the schematised categories by the determining power of judgement;
- II. Empirical objects of experience could be subject to a possible infinite amount of necessary rules (i. e. laws) whose necessity we do not have insight into;
- III. We must think the possibility of an infinite manifold of empirical laws in nature; [follows from II]
- IV. The unity of empirical nature must appear contingent to us, i. e. we cannot know a priori the infinite manifold of empirical laws; [follows from II]
 - V. If nature's empirical order were contingent, the unity and coherence of the experience of empirical objects would come under threat; [follows from III and IV]
- VI. For the sake of its own use, the RPJ must presuppose the necessary lawful unification of empirical objects to allow experience, even though they appear contingent to us;
- VII. We consider nature to be *purposive* to reflect on the objects for the sake of a continuous experience. [follows from V and VI]

Step I. Subsumption under Schematised Categories

The first move in the Deduction is basically a reiteration of a lesson from the KrV:

"we first find in the grounds of the possibility of an experience something necessary, namely the universal laws without which nature in general (as object of the senses) could not be conceived [...]. Now under these laws the power of judgement is determining." (V:182 f.).

In the first Critique Kant argued that to enable the experience of objects we must synthesise representations in accordance with the categories such that the sensual manifold agrees a priori with the most general laws of experience. These concepts of the understanding are necessary and general laws for relating intentionally to "objects of possible experience" (V:183). They do not depend on experience, but are themselves conditions of the possibility of experience. They are called general and natural laws, since they necessarily apply to every object in nature, regardless of its empirical features, as they cannot be an object of experience otherwise. Within the context of the Deduction this object of our intentional relation is described twice in a row as "nature in general" [Natur überhaupt] (V:183) and as the "object of possible experience" (V:183), thereby establishing the current scope (see 3.3).

The task of subsuming objects of experience under 'given laws' (V:183), namely the concepts of the understanding, is ascribed to the determining power of judgement. In the context of the Introduction this activity is restricted to the subordination under a priori transcendental laws. ³⁹⁷ Yet we have already seen in 3.4 that, in order to apply these categories, they must be translated into principles [Grundsätze], exhibiting how "the pure concepts of the understanding [can be applied, T. M.] to appearances in general" (A138/B177). Accordingly, Kant presents the Second Analogy as an example of a concept of the understanding under which an object can be subsumed in order to determine it. ³⁹⁸ This

 396 I have elaborated on this argument in slightly more detail in 4.3.

³⁹⁷Cf. V:179, XX:212. I will have more to say on determination in 7.2.
³⁹⁸The given example of a concept of the understanding states that every change has its cause (cf. V:183). This is very similar to the Second Analogy:
"All alterations [Veränderungen] occur in accordance with the law of the connection of cause and effect." (B232). Elsewhere this is reformulated in line with KU: "everything that happens has a cause" (A196/B241).
See 3.4 for my moderate reading of the Second Analogy. Cf. Longuenesse (1998, pp. 243–7) for a powerful account of these Principles or Grundsätze.

is no novel insight for readers of the KrV, rather it is reiterated at this point of the Deduction for preparatory reasons.³⁹⁹ Namely, by contrast, it is *not* the case that we can have necessarily insight into the constitution of empirical concepts. This we will see in the following steps.

Step II. Empirical Laws

The reader might have been wondering why I laid so much stress on the distinction between general and empirical laws of nature in the second half of chapter 3. The reason is that this distinction plays a crucial role in the Deduction: while the principles cover the application of the categories to the sensible manifold, they do not fully determine the empirical regularities of objects in nature. 400

"Now, however, the objects of empirical cognition are still determined or, as far as one can judge a priori, determinable in so many ways apart from that formal time-condition that specifically distinct natures, besides what they have in common as belonging to nature in general, can still be causes in infinitely many ways; and each of these ways must (in accordance with the concept of a cause in general) have its rule, which is a law, and hence brings necessity with it, although given the constitution and the limits of our faculties of cognition we have no insight at all into this necessity." (V:183)

If we acknowledge the limited explanatory power of the a priori categories in respect of empirical experience, which is controversial among the community of Kant scholars (cf. 3.4), we are drawn to the conclusion that – from an empirical point of view – our experience does not necessarily, i. e. a priori, correspond to empirical concepts. Whereas we are the authors of the categories, we are *not* the authors of the features of empirical objects, "since the particular empirical laws are [...] left undetermined in them [categories, T. M.] by the former [understanding, T. M.]" (V:180⁴⁰¹). Lowering the degree of abstraction, Kant introduces "objects of

 $^{^{399}}$ I will discuss the determining power of judgement in more detail in 7.2. 400 Cf. Pippin 2018, p. 198.

⁴⁰¹Cf. XX:209.

our *empirical* cognition" (V:183, emphasis mine) which are not merely ordered according to the principles of understanding, like 'nature in general', but also according to empirical laws. Apart from being an object of experience, they have 'specific-different natures' (V:183), i. e. the dispositional and causal properties belonging to a particular object of experience, which are left undetermined by the understanding. ⁴⁰² Yet their continuous lawfulness is already stated by nature_F; therefore we face a gap which this Deduction aims to close.

Considering the previous elaboration, it is safe to say that the understanding does not have insight into the necessity of empirical laws, since they are, for us, unlike the categories, per definition a posteriori. In view of the "constitution and limits [Schranken]" (V:183) of the human mind, the lack of a priori insight into nature's empirical laws is due to the particular constitution of our cognitive faculty as both sense-dependent and discursive such that our cognition depends on sensual representations received by the receptive sensible stem (cf. chapter 4). To reiterate a fruitful comparison: For an intellectual intuition empirical laws would not appear contingent, since it is absolutely spontaneous and therefore the absolutely self-sufficient source of its cognition (cf. 4.4). Note that the distinction between them empirical and categorial level of cognition would not apply for an intellectual intuition because it does not have a receptive sensual stem.

Apart from recalling the limits and scope of our mind, another crucial point is made at this stage of the Deduction. It entails a further consequence of the a priori insight that objects of empirical cognition can be determined in many ways apart from their determination as 'nature in general'. Recall that in 4.3 we already saw how objects are continuously determined. Kant notes that the amount of determinations is not restricted, but might be infinite. This is in line with his theory of concepts, ruling out a perfect fit between concept and object due to the mediateness of concepts, thereby allowing more and more concepts to conceive the regularities of the object without any restriction. Moreover, we should point out that, rather than in terms of features or concepts, Kant frames the Deduction in terms of 'law', a necessary a priori rule, determining the behaviour of empirical objects.

⁴⁰²Cf. V:179, cited in epigraph.

Step III. Thinking an Infinite Manifold of Empirical Laws in Nature

Whereas the former two steps were based on theorems discussed elsewhere in the critical corpus, the current step is drawn from the previous step. Immediately after the former quote, Kant draws the following consequence:

"Thus we must think of there being in nature, with regard to its merely empirical laws, a possibility of infinitely manifold empirical laws, [...]" (V:183).

Given step II, i. e. given that the objects of experience can be determined continuously in infinitely many ways by infinitely many empirical causal laws, we must think the possibility of infinitely many empirical laws in nature. Yet on the one hand the scope changes: the determinability of objects by empirical laws to nature is ascribed to the sum total of lawfully organised objects, i. e. nature. On the other hand it follows from the possibility of thinking infinite causes that the possibility of infinite many laws of nature must be thought. That is the result of this stage of the argument.

Step IV. Contingency of Empirical Nature

In step II we mentioned that, due to the limits of our mind, we cannot have insight into the necessity of empirical laws. That argument could be presented as follows:

If our mind is sense-dependent, we cannot have a priori insight into infinitely many different empirical causal laws.

Our mind is sense-dependent.

 $\dot{}$. We cannot have insight into infinitely many different empirical causal laws.

It follows that we do *not* have a priori insight into the possibly infinitely many empirical laws from steps II and III. This is indeed the further consequence drawn from the second step:

"Thus we must think of there being in nature, with regard to its merely empirical laws, a possibility of infinitely manifold empirical laws, which as far as our insight goes are nevertheless contingent (cannot be cognised a priori):

and with regard to them we judge the unity of nature [...] as contingent" (V:183, emphasis mine⁴⁰³).

Contingency

I would like to stipulate the tension between the modality of the empirical laws ascribed to nature in the previous step and our insight into those laws. Laws are for Kant by definition necessary, i. e. a priori, therefore the categories are laws of nature. Our insight into empirical regularities is, due to the particular constitution of our mind, contingent [zufällig (V:183)]. A fact is contingent if it cannot be known a priori; contingency is thus the contrary term of necessity. 404 Accordingly, Kant notes in the BDG that the contingent "is that of which the non-being can be thought; that is to say, what is contingent in the real sense is that of which the cancellation [Aufhebung] is not the cancellation of all that can be thought." (II:83)

For instance, the existence of Caesar, including the sum of all predicates ascribed to him (brave, emperor, etc.), is contingent. It could have been different; his "non-being can be thought of" (II:83), or, as is stated in a note to Bxxvi, his non-existence is free of contradiction. Instead a two-sided triangle cannot be thought of, since it is contradictio in termini. 405 Moreover, the constitution (empirical) nature is also described as contingent: "nature, considered as a mere mechanism, could have formed itself in a thousand different ways without hitting precisely upon the unity in accordance with such a [mechanical] rule" (V:360).

This slight terminological detour into the concept of contingency through linked pre-critical terrain was meant to support the elaboration on the account of contingency such that we can confidently state: if empirical nature is called contingent, the non-being of empirical laws can be thought of such that nature "could have formed itself in a thousand different ways" (V:360). Having

⁴⁰³A similar problem is stated in V:404. N. B. the first half of the citation, typographically marked by its upright shape, is identical to step III. Yet it does entail two different steps in my reconstruction.

⁴⁰⁴Cf. I:395, V:183.

⁴⁰⁵Cf. II:77.

said that, I am better equipped to point out the modal tension between the necessity of the laws ascribed to nature and their contingent status for us; even though we must ascribe necessary empirical laws to nature, due to our concept of nature in step II, our judgement about these laws can merely be contingent, i. e. not necessary, according to the transcendental inquiry into the source and limits of our mind. This means, in consequence, that the unity of nature is also contingent if the empirical aspect is taken into consideration.

Step V. Threat to Coherent and Unified Experience

At this stage of the argument it is crucial to emphasise the threat to the unity of experience, as stipulated in the retrospective remark on the Deduction, cited on page 180: the understanding demands a necessary lawful order of nature while the limits of our own mind do not allow a priori insight into causal empirical laws. The current step assumes, by way of thought experiment, the complete absence of the unity of empirical nature for us:⁴⁰⁶

"But since such a unity must still necessarily be presupposed and assumed, for otherwise no thoroughgoing interconnection [Zusammenhang] of empirical cognitions into a whole of experience would take place, because the universal laws of nature yield such an interconnection among things with respect to their genera, as things of nature in general, but not specifically, as such and such

⁴⁰⁶ Such a thought experiment is a common means in transcendental philosophy: "A transcendental argument [...] in order to establish a particular condition of knowledge or experience, proceeds in considering an alternative, that is, the negation of the condition, and subsequently demonstrates its internal incoherence." (Förster 1989, p. 15)

For Westphal (2005), these counterfactual cases of 'transcendental chaos' stipulate a necessary transcendental condition for self-conscious human experience, namely that the content of the sensual manifold must present a certain degree of homogeneity and variety to "be self-conscious, even to think, even to generate or to employ concepts" (ibid., p. 318). I think he mistakenly assumes these arguments to concern the constitution of the sensual manifold rather than the conditions of the possibility of experience of nature. In note 499 on page 233 I will discuss the alternative scenario Westphal introduces into the debate.

particular beings in nature [...]" (V:183)⁴⁰⁷

It is extremely important to draw attention to the severe consequences of the absence of a presupposed unity of experience. Nothing less than the unified coherence of experience would be lost: "we might be stranded", Zuckert (2007, p. 14) writes, "cognitively inert in the face of nature's diversity". This is problematic in light of the purported aim of our faculty to find regularities (cf. 5.2) or, as it stated in the above quote, to allow the continuous coherence of empirical cognition.

If empirical laws are contingent, their non-being can be thought of such that a continuous determination of empirical laws would be impossible. Kant is very clear in the quoted passage that this does not affect the possibility of experience in general, as the general laws of nature (i. e. categories) do present such a coherent unity. Yet further downstream the experience of empirical objects becomes fragmented, incoherent and lacks unity. As far as I can see, this is a real threat to the unity and coherence of empirical experience, and therefore a genuine transcendental problem, rather than the minor problem of how we regulate cognition of empirical laws. In 6.4 I will discuss scholars who opt for the latter position.

Step VI. Presupposition of an a priori Principle

If the goal of the Deduction is to lay down the conditions of the possibility of our relation to objects, the situation sketched in the previous step is discomforting, to say the least. At the same time, the first part of the previous quotation points towards a typical answer: the problematic situation arises only if we *not* set a unity of the empirical manifold as a condition for continuous and coherent empirical cognition. Thus, in order to overcome the problem, it is crucial to presuppose the possibility of an infinite manifold of coherent empirical laws. Accordingly, Kant continuous the sentence we considered in the previous step:

 $^{^{407}\}mathrm{Cf.}$ V:185. Please note that this alternative scenario is also mentioned immediately before the formulation of the antinomy in the KtU (V:386) and in the EEKU (XX:203 f.).

"[...] the power of judgement must thus assume it as an a priori principle for its own use that what is contingent for human insight in the particular (empirical) laws of nature nevertheless contains a lawful unity, not fathomable by us but still thinkable, in the combination of its manifold into one experience possible in itself." (V:183 f. 408)

Apart from its introduction of a transcendental principle, elsewhere presented as a "lawfulness of the contingent" (XX:217, V:404), the above citation is significant due to the explicit move towards the perspective of the human mind. The constitution and the limits of our mind were mentioned before, in step II, to explain why we cannot have a priori insight into the empirical laws of nature. In step IV the contingency of nature's empirical laws was derived from this lack of insight into empirical laws. In this step it is mentioned once more that the unity of contingent empirical laws is "not fathomable by us [für uns nicht zu ergründende]" (V:183).

Yet here an important addition is made, namely that there is a thinkable lawful unity entailing a possible experience, allowing experience of empirical objects for the sake of the use of the RPJ. Note in comparison to step II that in our current step the contingency of nature's laws for us comes into focus while the thinkable, but incomprehensible necessity of those laws for a supersensible entity saves us from contingency. 409

Already in step III one could have commented that, contrary to a first impression, the contingency and necessity of the natural laws do not conflict. Rather, we must distinguish between two different points of view: these laws are contingent "for human insight" (V:183) whereas they are necessary for another higher possible mind. Unlike an intellectual intuition, our mind is not able to evoke an object's reality by thinking of it: for us things can be possible without being real, like, for instance, imaginations,

⁴⁰⁸Cf. "This correspondence of nature in the multiplicity of its particular laws with our need to find universality of principles for it must be judged, as far as our insight goes, as contingent but nevertheless indispensable for the needs of our understanding, and hence as a purposiveness through which nature agrees with our aim, but only as directed to cognition." (V:186)

⁴⁰⁹ This modal tension is also mentioned in V:179 f., cited in the epigraph. According to Peter (1992, p. 67) this is the decisive argument in the Deduction.

hallucinations, memories etc. 410 This explains why we must – according to the citation – think this order rather than cognise it, since thinking is a less-demanding cognitive state. 411 It is, indeed, non-contradictory to believe that this order is contingent for us and necessary for another possible mind such that the 'modal tension' in step V dissolves.

Step VII. Introduction of Purposiveness as a Principle for Reflection

At the current stage of the Deduction, both the problem and the solution to that problem have been delivered. The *problem* can be stated as follows: the understanding demands necessary laws for the coherent and continuous experience of nature, yet since we depend on sensual impressions to discover empirical laws (unlike the most general laws of nature (step I)), the unity of empirical nature appears contingent to us, i. e. we cannot a priori cognise the infinite manifold of empirical laws (step IV), threatening the unity and coherence of the empirical experience of nature (step V).

The solution to save the unity of experience of empirical nature, taking into account the human finite perspective while providing the demanded necessity of nature's empirical laws, is to presuppose the necessary lawful unification of empirical objects, even though they appear contingent to us (step VI). In the final step, the principle (of purposiveness), its scope (nature, cf. chapter 3) and its application (reflection, cf. chapter 7) are presented:

"Consequently, since the lawful unity in a combination that we cognize as in accordance with a necessary aim (a need) of the understanding but yet at the same time as contingent in itself is represented as a purposiveness of the objects (in this case, of nature), thus the power of judgement, which with regard to things under possible (still to be discovered) empirical laws is merely reflecting, must think of nature with regard to the latter in accor-

⁴¹⁰Cf. V:402. For an intellectual intuition this modal distinction does not apply since thinking is productive all the way through, cf. V:403.

⁴¹¹ Thinkable means non-contradictory, cf. Bxxvi n. A four-sided triangle is, for instance, not thinkable, cf. II:77.

dance with a *principle of purposiveness* for our faculty of cognition, which is then expressed in the maxims of the power of judgement given above." (V:184)

As we have seen in step IV and more extensively in step V, lacking the principle at stake, the understanding cannot but consider the lawful order of empirical nature as contingent, since we do not have a priori insight into this order. Yet if our cognition of empirical nature were merely contingent, a demand of the understanding would not be fulfilled, namely to experience nature as a lawful and coherent unity (step V). 412 This demand of the understanding is described in our current citation as an aim and need, Absicht and Bedürfnis (V:184, cited in step VI). 413

To fulfil this demand of the understanding, nature is considered to be organised according to a principle of purposiveness for us. In step I we noted how the power of judgement determines nature in regard to the most general laws of nature. In regard to "possible [...] empirical laws" (V:184), introduced into the argument in step II, the power of judgement is reflective by selecting features in order to allow a classification, including a reflection on the method, means and selection criteria. Hence to reflect, we presuppose that "a cognizable order of nature is possible" (V:185), avoiding the threat of contingency.

Analogously to the reconciliation of the antinomy in the KtU (cf. 2.3.3), the Deduction not just concerns particular objects, but nature; it is the whole of nature being amendable to our cognition, allowing us to reflect also in cases where our mind has not been able to discover empirical laws. This was highlighted in step II as well as in the current citation by qualifying the term 'objects' parenthetically as "here as nature" (V:184). Moreover, in pertaining to nature rather than particular objects, purposiveness also implies that the quantity of contingent empirical laws is irrelevant, blocking the threat of an infinite amount of empirical laws discussed in step III.

According to this transcendental principle, nature is responsive to

⁴¹²This is also stressed in the citation at the outset of 5.2.

⁴¹³ Pippin (2018, 202 f.) links the account of need, Bedürfnis, to the need of the power of cognition to transcend experience. In both cases reason's need to seek the unconditioned is considered to be the primary driver.

a need of the understanding, fulfilling the purpose of the understanding to find unity among the manifold objects of experience. It is therefore not surprising that in the very same sentence this causal order is described as a principle "for our mind" (V:184), i. e. for the sake of its own use. 414 This might suggest that nature is called purposive because its purpose in 5.2 is to be known by us; yet thanks to our discussion of the account of purpose we know that purposiveness refers to the concept-dependent causality for us manifested by the maxims for the inquiry into nature. We would not talk of purposiveness if we had insight into the purpose. Rather, purposiveness indicates that only a (supersensible) understanding could have designed nature such that it can be known by us (cf. 5.2).

5.4 Reaction to a Counterargument

Rather than directing our cognition towards systematicity, as some believe⁴¹⁵, the extensive and detailed treatment of the Deduction showed how the principle of purposiveness saves us from the contingency of empirical nature and allows reflection on empirical laws of nature. Yet such a reading has been challenged by Zuckert (2007) in one of the most subtle and insightful treatments of this issue available. To confront my reading, which is from her point of view "philosophically and interpretatively problematic"⁴¹⁶, she sketches some key moves belonging to that type of reading, most of which appeared in the above treatment of the Deduction. Therefore I feel addressed and obliged to take this opportunity to respond to her criticism and additionally comment on her own approach in order to highlight our dissent.

Thin Utility Reading

Firstly, I will sketch this so-called 'thin utility'-reading. I want to emphasise it is neither my own nor Zuckert's reading, even though it broadly resembles my reading. The reading goes like

⁴¹⁴Cf. the selection of citations in note 23 on page 32.

 $^{^{415}{\}rm In}$ the next chapter I will discuss this so-called 'overlap problem', cf. 6.5. $^{416}{\rm Zuckert~2007,~p.~37.}$

this: Whereas the principles of reason guide us towards ideal, full and complete empirical knowledge, the KU asks "what nature must be like in order to make such aspirations realizable" ⁴¹⁷. This question becomes relevant in the face of the so-called "threat of diversity" ⁴¹⁸. This thinkable threat would, according to such a reading, consist in our inability to find similarities among the infinitely diverse objects of nature, because the contingent aspects of empirical objects are too diverse to grasp. In such a case it is "contingent that nature will be systematizable" ⁴¹⁹. To answer that threat we must presuppose nature's responsiveness to the particular character of our mind, because it has been designed by a supernatural creator, even though "God's intentions are vacuous, illegitimate explanations" ⁴²⁰. While we cannot prescribe, we "must assume that nature fits those cognitive requirements or aspirations" ⁴²¹ of our inquisitive mind.

Such a reading, which resembles in many aspects my treatment of the Deduction⁴²², leads according to Zuckert (ibid., p. 37) to a "weak, uninformative principle", which adds little to Kant's account of systematic guidance in the Appendix and does not rule out the threat of diversity. On her view this reading leaves open the possibility that nature does not answer to our cognitive needs. In other words, the principle makes a "thin utility"⁴²³ out of the principle and turns it into a vague epistemic guideline that can easily be dismissed. At best, she thinks, it is on this interpretation a heuristic means⁴²⁴, similar to the regulative principles of reason, although she acknowledges that the scope of the principle of purposiveness is not, unlike the maxims of reason, restricted to scientific systematisation and, also unlike those maxims, does include the presupposition that nature is

⁴¹⁷Ibid., p. 32.

⁴¹⁸Ibid., p. 35.

⁴¹⁹Ibid., p. 35.

⁴²⁰Ibid., p. 36.

⁴²¹Ibid., p. 37.

⁴²²The main difference consists in the fact that I am talking about a threat to coherent and unified experience (step V of my reconstruction) which is more fundamental than the inability to systematise empirical cognition, a task I will ascribe to reason in the following chapter.

⁴²³Ibid., p. 40.

⁴²⁴Cf. 6.5 for my rebuttal.

amendable to our cognitive faculty. 425 In her characterization of the 'thin utility position' the principle of purposiveness is merely a rule we test in our interaction with nature, which nevertheless cannot be presupposed.

Whether we find empirical laws in nature is still very much a contingent matter and "there is nothing in Kant's defence of this principle (as understood on this proposal) that would establish that we are, in any substantive sense, *justified* in so assuming."⁴²⁶ While neither providing guidance nor justifying our methodological maxims, this thin utility position could "at most be taken to express or ground gratitude and admiration for nature"⁴²⁷. From this perspective, the profit of the principle of purposiveness is minor and disappointing, like many advocates of the piecemeal reading have argued.

Zuckert's Substantive Reading and my Response

As far as I am concerned, Kant's answer to the problem in the Deduction is along the lines of this 'thin utility reading'. I also believe that the presupposition of the RPJ states in response to nature's manifold of empirical features that nature is amendable (or responsive) to our discursive faculty. As I have laid out more extensively in step VI of the prevailing commentary to the Deduction, the presupposition of nature's responsiveness to our mind is a necessary condition to orientate ourselves among the diverse objects in nature, otherwise the contingency of nature in an empirical respect cannot be avoided. The Deduction provides the justification for this transcendental principle – otherwise we would not be able the find coherence and unity among the manifold of nature's diverse features. Zuckert (2007, p. 42) acknowledges the amount of textual support for that reading, but she assumes at the end of the day that it does not solve the *contingency* of empirical nature.

⁴²⁵Cf. "Correspondingly, Kant appears to ask not only what our aspirations to ideal (full, complete) empirical knowledge comprise and by which principles we should be guided in our investigation (as in the Appendix), but what nature must be like in order to make such aspirations realizable." (Zuckert 2007, p. 32)

 $^{^{426} \}rm Zuckert$ (ibid., p. 40). For the first point, see Zuckert (ibid., p. 43). $^{427} \rm Ibid..$ p. 39.

I do agree with her: due to the constitution of our mind I am sure we cannot avoid the contingency (non a priori character) of empirical nature, yet in order to be able to *orientate* ourselves in the empirical diversity we must additionally presuppose the necessity of those empirical laws for another supersensible being. This is, in my view, achieved by the principle of purposiveness. Yet what Zuckert expects from that principle becomes more clear if we consider her own suggestion. I will argue why her own more substantive reading is not able to carry out the work she envisions it should do. In the wake of my response I will be challenged to formulate, once more, the problem at stake. Here is a formulation of Zuckert's more *substantive reading*:

"Kant is arguing that in order for us to comprehend empirical diversity, for us to make justifiable causal judgements, we need, in addition to the categorical principles, a principle of another kind of order or unity that holds $for\ and\ among$ the contingent – empirical, diverse – aspects of nature, i. e., a form of a 'unity of diversity' as such." 428

Formulated somewhat bluntly, in Zuckert's view the principle of purposiveness says that we have to presuppose a form of the diversity of nature as unified in an empirical respect. This is not an a priori statement about the order of nature, but about what must be there on the subject's side in face of nature's diversity to execute "any way of sorting, making salient or intelligible, the diverse, contingent aspects of natural objects" Yet it is remarkable that the overlap of the principle of purposiveness and reason's maxims, which she accuses the thin utility reading of, in fact applies to her own reading. These kind of formulations are problematic, from my point of view, insofar as they resemble the regulative principle of homogeneity of reason.

If purposiveness is taken as a "unity of the diverse", the question arises how this account relates to the schemata of reason, leading to a "unity into particular cognitions" (A647/B675) which might also be taken as a unity of the diverse. Yet Zuckert (ibid., 51 f.) is not willing to face the threat. Although she acknowledges that both faculties demand systematicity, the demand of reason

⁴²⁸Ibid., p. 43.

⁴²⁹Ibid., p. 48.

is in her view sheerly regulative (not transcendental) whereas the demand of systematicity in the KU is

"necessary for empirical concept formation [...] [I]t articulates a much less peripheral, optional goal for judging. In order for experience to be possible, we must, Kant writes, 'regard nature a priori as characterised by a logical system of its diversity under empirical laws' (XX:214)."

Apparently, her response to the threat of an overlap is that the demand of reason is not a condition for cognition in the strict sense and therefore should not be considered. Yet this is an unsatisfying answer if the very same condition, namely systematicity, is sheerly regulative in the one book and transcendental in another book. It is, moreover, interesting that she refers to the First Introduction, which lacks a Transcendental Deduction. ⁴³⁰ This problem is not discussed nor does she offer arguments for the insufficient restriction of the positive contribution of reason.

Furthermore, I do not see how the contingency of nature is saved by this alternative formulation, as she agrees that the principle cannot constitute the order of empirical nature. It is as much an a priori assumption as reason's maxims are. In my view, in contrast, the thin utility reading points towards the true innovation in the third *Critique*, as it responds to a threat to the unity of experience of empirical objects. The unity of experience of the empirical features is only possible when we presuppose the necessity of nature's empirical laws, even though we cannot cognise a priori the infinite manifold of empirical laws. This seems sufficient to solve the tension between the understanding's need for lawful nature and the limits of the determination of objects by our sense-dependent discursive mind, as I have tried to point out in my reading of the Deduction.

Without presupposing nature's amenability to our discursive faculty, reflection would not be possible. Rather than systematicity, the absence of which does not directly threaten cognition, as we will argue in 6.4, we are considering a *more fundamental presupposition* without which reflection on empirical nature, and in consequence the inquiry into the empirical laws in nature, would

 $^{^{430}}$ Cf. footnote 12 on page 27.

not be possible. Whether the utility of the principle is thin or thick, it is indispensable. That nature rather than particular objects is considered to be purposive blocks the threat of an infinite diversity as well as nature's contingency.

5.5 Conclusion

Over the course of this inquiry I defend the position that from a transcendental perspective the third *Critique* is, above all, concerned with a genuine faculty, the RPJ, and its principle, the principle of purposiveness. More clearly than before we could observe in our careful reconstruction of the Deduction in what respect the principle is a necessary condition for the possibility of reflection on empirical features of nature. If we do not presuppose nature's amendable relation towards the particular discursive character of our mind, we cannot proceed with our inquiry into nature in the face of the contingency of nature's empirical features, considering the mind's "need", *Bedürfnis* (V:184, s. step VII), to constitute a unity of experience. Our cognition, which due to our finite faculties is contingent, scattered and full of leaps, would lack unity in the absence of this principle.

In the reconstruction of the Deduction I have particularly emphasised that the principle of purposiveness solves the tension between the contingency of our insight into nature's empirical laws and the understanding's demand for the necessity and coherence of these laws. A presupposition was needed to both integrate the claim for a necessary and coherent order of empirical laws while acknowledging the peculiarity of the human mind. I have argued that, on Kant's account, according to this presupposition nature is amenable to the need of our cognitive faculty, although we do not have insight into nature's order due to the constitution of our mind. The unity, continuity and coherence of experience of empirical objects are preserved only under the guidance of this principle. That way, the principle serves the need of the understanding to generate a coherent experience out of impressions given to our senses. If that is correct, it is indeed a necessary vet regulative condition, made independently of experience, for the possibility of the experience of empirical objects.

Finally, I would like to highlight that presupposing nature's responsiveness to our mind is not merely a vague insufficient expectation, like Zuckert (2007) assumes, since it leaves open the possibility that nature does not answer to our cognitive needs. I believe the above argumentation has sufficiently shown that it is a necessary condition for the possibility of experience. We would not be able to recognise any order, but just an "infinite manifold" (V:185), without a foothold to orientate ourselves within it. This does not conflict with the insight from the first *Critique* reiterated in step I of the Deduction, since the application of the categorial principles does not sufficiently cover the empirical level, as I have argued in chapter 3 on nature. The principle of purposiveness is only relevant in respect to the application of the RPJ.

Chapter 6

On an Assumed Overlap

6.1 Orientation

Once more, I will review some previous moments to situate the current chapter within the overall argument. In chapter 3 we concluded that we do not have a priori insight into the empirical laws of nature. A priori we have insight into the most general laws of nature and are allowed to call ourselves – from a transcendental point of view – the 'lawgiver of nature'. Unlike these general laws as well as rules and concepts of nature, the empirical laws are contingent, i. e. not necessary, from our particular and limited perspective. In chapter 4, more specifically in 4.3, we concluded from Kant's account of discursiveness that nature must have a certain systematic structure in order to be accessible for us. A system of judgements is more than a mere stack; it demands interdependent hierarchical relations between those judgements. Rather than being a constitutive principle, this demand for systematicity is a regulative principle to guide the extension of our inquiry and cognition of nature.

In the previous chapter we learned that it is a matter of debate to

what extent the demand for systematicity overlaps with the principle of purposiveness. Prominent scholars regularly suppose the regulative systematising principle behind the reflective activity to overlap with the maxims of reason guiding reason's hypothetical activity. Moreover, they postulate an overlap between the reflective activity and reason's organising activity and between the outcome of these activities, since both seem, prima facie, to search for concepts. If this were the case, it would pose a severe threat to the transcendental contribution of the KU, assuming that my presented account is sound. This would imply that the RPJ, which has been brought to the very centre of this inquiry, is superfluous, thereby giving way to a piecemeal approach.

Later on I will deny that the supposed overlap poses a serious threat, but I can do so only after a lengthy discussion of reason's positive contribution to cognition as presented in the Appendix. More specifically, I will discuss how the schemata of the ideas of reason order the application of the understanding and in what sense this activity is transcendental. Subsequently, I will argue that the task of the RPJ is more fundamental than the epistemic regulation by reason, since the RPJ applies a principle claiming additionally that nature has been organised by a supernatural instance for us in accordance with our peculiar sense-dependent discursive mind. This is, on my reading, a presupposition that first allows for reason's systematisation, yet it is more than a mere condition for systematisation. On a more general scale it is a condition for our intentional relation to nature, as aesthetic judgements show most forcefully (see 2.2.2).

I will approach this assumed overlap step by step. Firstly, in 6.2, I will discuss the constitution of reason as well as its regulative role regarding cognition, showing that the tendency of reason to complete the series of conditions relates to the regulative activity by the maxims of reason. Secondly, in 6.3, I will discuss the status of regulation, arguing why it is a necessary condition for organised systematic cognition. In this context I will discuss a positive and a negative example of regulation in order to strengthen our grasp of the matter. Thirdly, in 6.4, the status of regulation is discussed; I will distinguish between a normal and a qualified account of cognition in order to map the contribution of reason and, moreover, argue why the maxims of reason are backed by

the ideas. With these insights into reason's positive contribution to systematic cognition as well as an account of the principle of purposiveness from chapter 5 I will be able to consider the overlap threatening our reading of the KU in 6.5 and argue why I believe the argument does not apply.

6.2 Granting a Role to Reason

While the complete KrV demands a dedicated reader, this is even more true for the Appendix to the Dialectics. The overall aim of the Dialectics is to argue why dogmatic metaphysics is fallacious: judgements about freedom, God and the immortal soul are defective judgements lacking truth value, since they cannot be related to intuitions and their corresponding objects. Because we are, due to "a natural and unavoidable dialectic of pure reason" (A298/B355), seduced to believe these illusions, a transcendental critique is needed, considering our necessary contribution to our relation to objects, to point out why judgements about these so-called ideas are empty⁴³¹; we must restrain from judging these ideas, even though reason unavoidably produces illusory ideas. Hence the illusion does not dissipate, much like the straight stick in the water will look bent even after the mechanics behind the optical illusion have been detected and explained.⁴³²

The situation – and consequently the text – becomes even more complex as soon as Kant introduces a genuinely positive contribution of reason to cognition in the Appendix to the Dialectics. Carefully avoiding the fallacies of reason, Kant identifies the "necessary" (A677/B705) contribution of reason for regulating cognition towards systematisation. Unlike some interpreters, I do not consider this to be a mere heuristic set-up. Instead, I will argue that Kant is determined to back these directives for our inquiry of reason by transcendental principles, derived from

 $^{^{431}}$ 'Empty' is taken in the sense discussed at the outset of 4.4.

⁴³²Cf. A297/B354, Grier (2001, p. 19). This account accords with Kant's own account of an illusion provided in the Anthropologie in pragmatischer Hinsicht (1798) (Anth): "Illusion ist dasjenige Blendwerk, das bleibt, ob man gleich weiß, daß der vermeinte Gegenstand nicht wirklich ist." (VII:149)

the ideas of reason, while maintaining the regulative rather than constitutive status of the directives. Furthermore, on my reading, regulation does not imply that the intellectual activity is optional and heuristic; rather, the concepts *guide* the organisation of the concepts.

Logical Activity of Reason

Before I can argue for this reading of the contribution by reason to systematic cognition, I must introduce the particular logical activity of reason. This is important to understand how reason arrives at the ideas. Unlike the supposed lack of coherence many esteemed scholars⁴³³ have found in the Appendix, my reading will result in a workable and coherent account of reason's positive contribution to cognition, allowing us to roll out the announced comparison with the RPJ and to argue why the supposed overlap does not apply.

Whereas the understanding, the "faculty of rules" (A126), descends from conditions to the conditioned, reason, the "faculty of inferences" (A299/B355), ascends from conditions to unconditioned principles. ⁴³⁴ The understanding synthesises the sensible manifold according to concepts, judgements and rules to cognise the object of intuition. ⁴³⁵ Reason draws, by way of inferences, more specific conclusions from more general premises. ⁴³⁶

For Kant, inferences have – primarily – a traditional syllogistic form, such that the minor and major premisses lead to the conclusion by force of necessity. 437 Regardless of what experience says, subsuming the minor premise under the major according

⁴³³See, for instance, Horstmann (1989, p. 166).

⁴³⁴Cf. A336/B393.

⁴³⁵Cf. B135, A51/B75.

⁴³⁶Cf. "[R]eason is the faculty of deriving [ableiten] the particular from the universal, [...]" (A646/B674).

⁴³⁷Cf. A306 f./B363 f. "Der Vernunftschluß ist das Bewußtseyn der Nothwendigkeit einer Erkenntnis durch die Subsumtion (der Bedingung) derselben unter eine allgemeine Regel" (R3196, XVI:707 (1775–9)). In the following chapter I will discuss the status of non-paradigmatic cases of analogy and induction the conclusions of which do not hold by the force of necessity (cf. 7.2).

to valid laws of inference forces to accept the conclusion. Let us consider the following syllogism:

All men are mortal Socrates is a man
∴ Socrates is mortal

Whereas the understanding applies conceptual representations to the sensual manifold such that the manifold agrees a priori with the forms of judgement, reason is only aware of the logical validity of an inference, regardless of the correspondence between a derived conclusion and a relevant state of nature. 438 Every exercise of reason is, as Pippin (2018, p. 197) states, a form of "necessary self-determination". If Socrates had actually been a zebra rather than a man, this would have been irrelevant for the validity of the conclusion in the above inference. This situation is highly problematic as soon as we turn to another feature of reason: it demands the *completion* of the series of conditions by reaching a condition that is not determined by further conditions. Kant believes that each syllogism demands further presyllogisms, because the premises are in need of justification, until the series is brought to completion by the "absolutely unconditioned" (A409/B436). For instance, a presyllogism to infer the major premise in the above syllogism might look like this:⁴³⁹

All mammals are mortal All men are mammals ... All men are mortal.

Reason naturally and inevitably completes the series of all conditions, since it seeks and demands ultimate explanation. ⁴⁴⁰ If no further 'presyllogism' (A307/B364) can be formulated to determine the premises in the syllogism, the series of conditions has been brought to completion. For this purpose it must transcend the bounds of sense to arrive at an *unconditioned condition*

⁴³⁸Cf. A58/B82.

 $^{^{439}\}mathrm{A}$ procedure to infer the major from a more general presyllogism is described in A322/B378 and in more detail in A330 f./B387 f.

⁴⁴⁰ Cf. "Reason demands this in accordance with the principle: If the conditioned is given, then the whole sum of conditions, and hence the absolutely unconditioned, is also given, through which alone the conditioned was possible." (A409/B436, cf. A307/B364 f., XXVIII:195)

which itself cannot be justified by a higher (more general) premise within a presyllogism. There are three kind of *ideas*, as these unconditioned conditions are called, based on the maximisation of the relational categories: substance, causality and community.⁴⁴¹ Hence, if the conditioned is given (like an object of experience), the entire series of conditions – including the unconditioned – is derived to seek unconditional unity for completion.⁴⁴² That is how we generate:

- a completed series of substances (*eternal soul*), namely a substance which is not a predicate of another substance;
- a completed series of antecedents (*freedom/world*), namely an antecedent independent of another antecedent;
- a completed series of mutual corresponding substances (God), namely a substance independent of another substance. 443

As a transcendental analysis points out, these ideas, which by definition lack a corresponding object of experience, can never become an object of experience⁴⁴⁴, since they transcend the domain of nature. At the very same time, reason forces us to accept this 'inescapable illusion' since its primary task is to close the series of conditions. That way, our mind is naturally led to the false belief that these concepts have corresponding objects following its own prescription of seeking the ultimate explanation. This is the *illusion of reason* we naturally fall prey to.

⁴⁴¹Like Pippin (1982, p. 211), I cannot explain exactly how the ideas are derived from the categories, but I can proceed without filling this nonargumentative gap.

⁴⁴²Cf. Grier (2006, p. 198). She refers to A498/B526.

⁴⁴³Cf. A323/B379 f., A333-5/B390-2.

⁴⁴⁴Cf. A311/B368, A339/B397, A679/B707. That ideas lack a congruent object by definition is stated in A339/B397 and A621/B649. Kant ascribes to Plato the view that such ideas "have their reality and are by no means merely figments of the brain" (B370/A314, cf. A682/B710). Differently, Kant argues that this natural tendency of reason must be avoided at all costs, as they lack a corresponding object.

Regulating Schemata of Reason's Ideas

I will not trace the concise discussion of the seduction of reason into supposing the reality of these ideas and Kant's vehement opposition to metaphysical theories that allow cognition of the super-sensible. It exceeds the overall aim of this study, but we cannot leave it out entirely either. It is important to briefly recall this critique for two reasons: firstly, it explains the cautious character of the discussion in the Appendix to the Dialectics, leading to the interplay between the necessity of regulation of experience on the one hand and the impossibility to cognise reason's ideas on the other hand. Being aware of how easily reason leads the way to dogmatic metaphysics, Kant proceeds extremely carefully in his discussion of the positive contribution of reason. It is stressed again and again that the use of the regulative principles of reason guides our cognition rather than constituting objects of experience.

Secondly, and more importantly, this quick presentation of the ideas will help us to understand how the ideas are necessary presuppositions for the maxims of regulation. These maxims, i. e. the medium between the ideas and the regulation of the inquiry into nature, are sometimes called the *schema of reason's ideas*, or, more accurately, an "analogue of a schema of sensibility" (A665/B693). Before we take a closer look at this mediation, I would like to point out why we are not dealing with a proper scheme, drawing on an argument made previously. Unlike the dynamical principles of the understanding

"Principles of pure reason [...] cannot be constitutive even in regard to empirical concepts, because for them no corresponding schema of sensibility can be given, and therefore they can have no object in concreto." $(A664/B692)^{447}$

⁴⁴⁵See Grier (2001) for a penetrating study of this matter.

⁴⁴⁶Grier (ibid., 265 f.) notes a tendency among the readers of Kant with a particular interest in his philosophy of science to neglect the underlying ideas. Grier herself believes that a heuristic and a transcendental reading go hand in hand, cf. Grier (ibid., p. 274).

⁴⁴⁷Cf. "[T]his transcendental thing is merely the schema of that regulative principle through which reason, as far as it can, extends systematic unity over all experience." (A682/B710)

The a priori principles of the understanding are constitutive predicates of experience, as we do experience substances, causes. community, etc. 448 The projected systematic order is not a constitutive feature of our experience, because the ideas do not offer "a corresponding schema of sensibility" nor an "object in concreto" (A663 f./B691 f.). To avoid a possible misreading, it is important to distinguish between schemata of ideas and schemata of sensibility: nevertheless, the schemata of the ideas are not sensible and yet they are called schemata. The reason they are called schemata is because they offer a rule to apply the concepts of reason: "the application of concepts of the understanding to the schema of reason is [...] only a rule or principle of the systematic unity of all use of the understanding." (A665/B693, emphasis mine) In my view, this sentence echoes the role of the schemata of the power of imagination, namely offering a rule for how our intuitions need to be determined. 449

So the schemata are ways of representing the ideas as complete organised series of elements which enable the application of these ideas, although these ideas themselves cannot be exhibited without trapping ourselves in dogmatic metaphysics. Hence, where Kant writes that the schema is the "idea of the maximum of division and unification of the understanding's cognition in one principle" (A665/B693), he seems to say that it is the rule prescribing how to strive for the maximal unification and specification of cognition by the understanding.⁴⁵⁰

Having discussed the schemata of reason, we are able to parse how the ideas indirectly guide our inquiry into nature towards these three completed series of conditions. Thus, the ideas of reason are of use for cognition if they are not considered to be given objects, but speculative orders we strive for. ⁴⁵¹ Building upon the three ideas (see page 212) we can specify these orders:

⁴⁴⁸Cf. Friedman 2013, p. 548.

⁴⁴⁹Cf. A141/B180.

⁴⁵⁰Cf. "Empirical specification soon stops in distinguishing the manifold, unless through the already preceding transcendental law of specification as a principle of reason it is led to seek such disclosures and to keep on assuming them even when they do not immediately reveal themselves to the senses." (A657/B685, cf. A671/B699)

 $^{^{451}\}mathrm{Cf.}$ Ferrarin 2015, p. 44.

- Heading towards the simple [einfache] substance, the eternal soul, we are searching for unity;
- heading towards the final cause, the cause of all causes (freedom), we are looking for a complete causal chain, thus trying to discover as many different causes as possible, i. e. manifold;
- heading towards one single mutual corresponding set of substances determined by itself (God), we are searching for continuity among the substances.⁴⁵²

This explanation provides us with three schemata:

- *Homogeneity* strives for the highest common genus to entail as many concepts as possible;
- heterogeneity strives for the greatest diversity of all species, subspecies, etc.;
- continuity strives for the absence of gaps towards a unity (or Verwandtschaft) of all possible cognition.

The schemata are formulated on page A657 f./B685 f. in the following way:

- "sameness [Gleichartigkeit] of kind in the manifold under higher genera"
- "variety of what is same in kind under lower species"
- "affinity of all concepts"

Table 6.1 on page 216 displays the relation of these schemata with the form of judgements and the ideas of reason.

By and large this section was meant to sketch how the regulative maxims are born out of reason's ideas, mainly to illustrate the danger of dogmatic metaphysics. This will become important in section 6.4 on the status of regulation where I will argue that reason's maxims are backed by the ideas such that the maxims are appropriate to explore nature's systematic order. Yet first I

⁴⁵²This elucidation has been adopted from A672 f./B700 f. For the account of continuity, cf. Liedtke (1964, p. 133). Cf. "The property of magnitudes on account of which no part of them is the smallest (no part is simple) is called their *continuity*." (A169/B211, emphasis mine)

Form of Judgement	Idea	Principles
categorical	eternal soul	homogeneity
hypothetical	freedom	specification
disjunctive	God	continuity

Table 6.1: Relation of schemata with the form of judgements and the ideas of reason.

want to focus on the task of regulation itself, which is important to distinguish between reflection and regulation.

6.3 Regulation

Having given a quick presentation of the ideas of reason and its schemata, we might want to explore how reason guides, or regulates, the inquiry into nature by way of these schemata. This will play a central role in the accusation of overlapping tasks and principles between the RPJ and reason. The following citation links the discussed tendency of reason to complete the series with its regulative activity:

"Reason never relates directly to an object, but solely to the understanding and by means of it to reason's own empirical use, hence it does not *create* any concepts (of objects) but only *orders* them and gives them that unity which they can have in their greatest possible extension, i. e., in relation to the totality of series; the understanding does not look to this totality at all, but only to the connection through which *series of* conditions always *come about* [*zu Stande kommen*] according to concepts." (A643/B671)⁴⁵³

⁴⁵³Cf. A302/B359, A664/B692. Here are some other descriptions of guidance or regulation: "[reason can] the procedure in accordance with which the empirical and determinate use of the understanding in experience [Erfahrungsgebrauch] can be brought into thoroughgoing agreement with itself" (A665 f./B693 f.). Regulation is "furthering and strengthening [befördern und zu befestigen] the empirical use of reason by opening up new paths into the infinite (the undetermined) with which the understanding is not acquainted, yet without ever being the least bit contraryto the laws of its empirical use." (A680/B708, cf. A647/B675) "To make systematic the unity of all possible empirical actions of the understanding is a business

Again, the contrast with the understanding proves to be fruitful. Unlike the understanding, reason is not directed at the matter of sensibility, but rather at the order of the rules applied by the understanding to unify these rules. That is how isolated judgements are unified into a coherent order while pointing towards ways to extend empirical cognition systematically. Lacking reason, the understanding would keep on subsuming objects under its concepts without being motivated to extend and develop this system of concepts in directions set by the schemata of reason's ideas nor to unify those judgements into a projected order. Thus, reason guides and supports the understanding, discovering a potential infinite manifold of approaches towards nature. 455

The projected ideal situation, namely the maximal variety of continuously related objects brought to the greatest unity, is sometimes referred to as a system and the process of ordering as systemetisation. A system is in Kant's terminology a coherent body of knowledge standing under and derivable from one single principle. Its counterpart, a disorganised non-systematic manifold, is called a rhapsody, e. g. A832/B860.⁴⁵⁶ That is the ideal epistemic situation to which reason leads by its process of maximisation. Having said that, systematicity could be understood as a guideline, Richtschnur (A675/B703), bringing the highest amount of phenomena under the smallest amount of principles, thereby leading towards yet never arriving at the completion of the body of empirical cognition. Examples of this process of ordering are the taxonomist who orders the world of flora and fauna into a

of reason" (A664/B692, cf. A473/B502). "[T]ranscendental concepts lack a suitable use in concreto and have no other utility than to point the understanding in the right direction so that it may be thoroughly consistent with itself when it extends itself to its uttermost extremes." (A232/B380, cf. A305 f./B362). Elsewhere, the maxims of reason operate like epistemic norms: "Such concepts of reason are not created by nature [aus der Natur geschöpft], rather we question nature according to these ideas, and we take our cognition to be defective as long as it is not adequate to them." (A465 f./B673 f., emphasis mine, cf. A657/B685)

⁴⁵⁴Cf. A5/B9. "[T]he understanding's gaze is focused on its object. Reason's gaze is comprehensive and tries to include, along with the object, its other: its first and last, its condition and its consequences." (Ferrarin 2015, p. 45). Cf. Ferrarin (ibid., p. 52) and Grier (2001, p. 131).

⁴⁵⁵Cf. Liedtke 1964, p. 130.

 $^{^{456}{\}rm Cf.}$ "the systematic in cognition, i. e. its interconnection based on one principle." (A645/B673)

system, the chemist ordering the elements into a periodic table or the sociologist distinguishing different classes of agents. If the scientist did not expect a certain order, but accidentally happen to stumble upon certain facts, she would – according to Kant – not be able to achieve systematically organised cognition. 457

Handled correctly, this horizon can guide and regulate the understanding as much as possible, "so viel als möglich" (A666/B694). Precisely because reason envelops a horizon beyond experience, it is never satisfied by experience and provokes understanding to continue discovering both the greatest manifold and the greatest unity of nature in search for a more integrated and unified system of knowledge. The ideal order of reason can be approached only asymptotically; due to the transcendent character of these principles, empirical cognition will at no single point satisfy the demand of reason. The demand does not consider what we experience: it could be the case that our state of cognition does not allow us to find a unifying principle of a certain domain of objects, yet that does not prevent us from presupposing such a principle. The demand of the control of the company of the control of the company of the company of the control of the con

In fact, since reason always transcends the bounds of experience, the systematicity demanded cannot be arrived at, "for experience never gives an example of perfect systematic unity." (A681/B709) This accords with the tension mentioned between the impossibility of realising the ideas and the necessity of reason's maxims for systematising cognition.

⁴⁵⁷ Cf. "Thus no one can pretend to be practically proficient in a science and yet scorn theory without declaring that he is an ignoramus in his field, inasmuch as he believes that by groping about [Herumtappen] in experiments and experiences, without putting together certain principles (which really constitute what is called theory) and without having thought out some whole relevant to his business' (which, if one proceeds methodically in it, is called a system), he can get further than theory could take him." (VIII:276, cf. XX:242, Bxiii and Zuckert (2007, p. 30))

 $^{^{458}{\}rm Cf.}$ A663/B691. This point is stressed by Deleuze (1967, pp. 218–221), Kreines (2009, p. 538) and Friedman (1992c, p. 74). $^{459}{\rm For}$ an example, see A652 f./B680 f.

Focus Imaginarius

It is worth mentioning one of Kant's many optical metaphors, according to which an ideal cognitive situation is projected onto our cognition of nature as a *focus imaginarius* [Sehepunkt], an apt term Kant adopts from the 8th axiom in the first book of Newton's Opticks. He Newton was only concerned with the nature of light causing the optical phenomenon of an object in front of a mirror appearing behind that mirror if the subject looks into. Yet Kant adopts this account for his own purposes and applies it analogically to illustrate the role of reason's maxims.

According to Kant, we should not only be concerned with the object we can experience in front of us, but also with the objects behind us that are shown mediately, or "indirectly" (A670/B698), through the mirror (i. e. reason's maxims), in the position where it would be if the lines of light proceed along a straight line. 'The objects behind us' stands metaphorically for objects that do not appear as part of empirical nature, but can be supposed to be part of nature, and in that way direct our cognition towards that point. These objects seem supernatural insofar as their visual input is organised by an element outside of the realm of empirically possible experience (the mirror or the ideas), ⁴⁶¹ yet they are indispensable means to get to know the objects 'behind us', not just through induction, as Allison (2004, p. 427) believes ⁴⁶², but all kinds of systematising activities by reason

⁴⁶⁰ Cf. A644/B672. This analogy between an optical and a metaphysical illusion first appears in Kant's polemics against the spiritual substances proclaimed by the Swedish mystic Swedenborg in Träume eines Geistersehers, erläutert durch die Träume der Metaphysik (1766) (TG): cf. II:332-4, 344-6. The account of a focus is introduced in axiom 6 of the first book of I. Newton (1704) in terms very similar to Kant's while, as far as I can see, Kant's stress on the illusory aspect is his own. Cf. Grier (2001, 37 f.) and Allison (2004, p. 426) for further illuminating discussion.

⁴⁶¹Cf. "Now of course it is from this [i. e. the idea of systematicity, T. M.] that there arises the deception [Täuschung], as if these lines of direction were shot out from an object lying outside the field of possible empirical cognition (just as objects are seen behind the surface of a mirror)" (A644/B672). See Allison (ibid., p. 426) and Grier (2001, p. 127) for a similar reading.

⁴⁶² Kant is quite explicit that induction is not an inference by reason: "Ein ieder Vernunftschluß muß Nothwendigkeit geben. Daher sind induction und analogie nicht Vernunftschlüße, sondern praesumtionen (schlüße der Urtheilskraft, nämlich für dieselbe) oder auch empirische Schlüße." (R3276,

that go beyond the present testimony of our senses. In that sense, the maxims of reason can point beyond experience along the lines of experience.

Examples of Regulation

For further illustration I will refer to the following examples from the Appendix. Within the current context they elucidate Kant's dictum that reason searches for a unity beyond experience. 463 More specifically, they are supposed to elucidate the application of the regulative principle of continuity.

Suppose one day scientists note that all heavenly bodies move spherically, yet these movements show a considerable range of variations between circular and elliptical. Some comets do not even return into their orbit, prompting the researchers to speculate that these might be cases of a parabolic orbit. This guess is in line with their theory, as parabolas are related to ellipses. Furthermore, concerning the enormous distances, possibly even beyond the current solar system, this hypothesis is not at all in conflict with their observations. Finally, this striking uniformity among the orbits inspires the astronomers to look for the shared cause of that movement. It turns out that the comets are attracted by the heavenly body they are circulating around. 464

What concerns us in this case is the methodology in respect of reason's principles. First of all, the regulation of the principle of continuity is obvious: the scientists attempt to relate all orbital forms with each other. All of the movements are somewhere on a continuous scale between circular and elliptical and thus related according to the principle of continuity; the exceptional cases are interpreted such that they do not conflict with this continuous scale. Furthermore, it is reason's demand for one generic kind

XVI:755 (1769–72)) The rationale behind Allison's firm commitment to this interpretation is that he wants Kant to respond to Hume's problem of induction, although he admits repeatedly that this is an artificial presentation of the problem. See Geiger (2009, $535~\mathrm{n.}$) for passages where Allison admits this.

⁴⁶³Cf. A662/B690.

⁴⁶⁴Cf. for a more extensive account Friedman (1992b, chapter 4). The example is given in A662 f./B690 f.

of geometrical form that forces them to look for a common cause, in this case gravitation, bringing unity into all of these observations. This way, the principles of reason transcend the bounds of experience, but are nevertheless in line with experience. It is in this context where Kant notes:

"[reason can] add on more than experience can ever confirm, namely in accordance with the rules of affinity even conceiving hyperbolical paths for comets in which these bodies leave our solar system entirely and, going from sun to sun, unite in their course the most remote parts of a world system, which for us is unbounded yet connected through one and the same moving force." (A663/B691, first emphasis mine)

It is interesting to note that here Kant recognises the bounds of experience while endorsing the transcending activity of reason. Whereas the determining act of cognition is finite, the process of regulation by reason does not come to an end.

Searching for continuity among the substances (here: spherical movements of heavenly bodies), reason does not stop at experience, but multiplies the amount of solar systems until infinity. At this stage one might suggest hypothetically that the comets follow hyperbolic movements through various solar systems. In fact, this explanation lines up well with the other orbital forms we can observe. Accordingly, reason offers an explanation for the parabolic movements observed by the scientists in line with the available experience, namely – in terms of the analogy – the objects in front of the mirror. The scientists are not able to confirm this suggestion on the basis of their observations, but it might still give directives for future scientists equipped with stronger tools. As such, reason guides the "search for the constitution [Beschaffenheit] and connection of the objects of experience in general" (A671/B699) as far as possible towards

⁴⁶⁵The determinate search for the Higgs boson, accompanied by tremendous effort by a huge staff of global operating scientists over various decades, supported by groundbreaking technological innovations, is from my perspective a perfect recent example of this interest of reason. "The finding completed the scientific arc of prediction, discovery and confirmation: first they calculated what they should be able to detect, then decided what the evidence should look like, and then devised the experiment that clinched the matter." (Radford 2016)

an ideal systematic unity. 466

Herder's False Implementation of the Principle of Continuity

I take this example as an implementation of reason's maxims to systematise our cognition of the observations and direct our research after reaching the limits of the sensible. Now I would like to consider what is, from Kant's point of view, a false implementation of the regulative principles, namely the misuse of regulative principles leading to unfounded speculation. In Kant's view, the positive contribution of reason to cognition consists in the completion and systematisation of cognition, directing the course of research. This was illustrated by the account of a focus *imaginarius* and exemplified by the research into the movements of the heavenly bodies. The false implementation concerns the implementation of the principle of continuity in Herder's *Ideen* zur Menschheitsgeschichte in four volumes (1784–91) as discussed in a provocative two-fold review by Kant. Before I can discuss his account and Kant's reply, I kindly ask the reader for patience as I outline the context.

Since the publication of Linneas' Systema Naturae in 1758 and the appearance of reports about non-Western cultures in the course of Western colonisation, a hotly debated issue concerned how all of these different expressions of culture hang together. Having a keen interest in this discussion himself, Kant dedicated no less than three articles and three reviews during the 'critical years' on this seemingly peripheral topic. In those writings he favoured a view linked to Buffon and his proposed method of Naturgeschichte. As we have seen, Naturgeschichte is not merely a descriptive and classifying discipline, but seeks to reveal the causes to formulate them in laws. Hill Linnaeus based his taxonomies on static similarities between species (Naturbeschreibung), Buffon based his selection on the ability of individual organisms to reproduce, allowing deviations and changes over time (Naturgeschichte).

⁴⁶⁶Cf. A647/B675, A668/B696.

⁴⁶⁷See the disclaimer on a possible political drawback in footnote 170 on 88. ⁴⁶⁸Cf. VIII:161 f. I will rely on this account of *Naturbeschreibung* in 7.3.

In his own writings, Kant applies Buffon's approach to the human species. Since a male and female belonging to different human races can produce offspring capable of reproduction, the various human races are considered as instances of one identical origin [Stamm]. More concretely, races are in Kant's view deviations having two features, namely that i) this subset of the original species stays together geographically, ii) always produces mixed offspring if they are crossed with another race. 469 In line with this view, Kant argues in Von den verschiedenen Racen der Menschen (1775) (VvRM) that climatological and geographical conditions are responsible for deviations from the original species as these circumstances activate certain dispositions [Keime]⁴⁷⁰ if the variation is exposed to certain ecological constraints for a certain period of time. However, as the Romani in Europe demonstrate, as soon as a race has been established, the circumstances do not affect the colour of skin.⁴⁷¹

We can now turn to our actual topic, namely the review of Herder. Kant treated this work as a typical product of the so-called *Sturm und Drang*-movement which was, in his view, a threat to the project of the Enlightenment. This movement, lead by Herder and Goethe, was famous for "stressing linguistic uniqueness, literary genius, ethnic and religious tradition, and a staunch aversion to Western rationalism"⁴⁷². More specifically, Herder's primary aim in the *Ideen* is to overrun the extra-ordinary status of human beings within the realm of organisms by way of a "continuous gradation of its creatures" (VIII:53). In Herder's view, human beings merely stand out from other animals by their

 $^{^{469}}$ Cf. II:430.

⁴⁷⁰Cf. II:434 f. Kant himself brings this in close connection with Blumenbach's account of "Bildungstrieb" (VIII:180 f., V:424, cf. Zammito (2003)). Interestingly, Kant uses the concept of purposiveness in order to justify his account of dispositions (cf. VIII:102 f.).

⁴⁷¹Cf. VIII:172. The Romani, also known as gypsies, belong to the Indian race according to Kant's account. Recent genome-based research confirms that Romani migrated about 1500 years ago from north/northwestern India to Europe (Mendizabal 2012, cf.).

⁴⁷²Zammito (1992, p. 13). For Kant, the primacy of emotion, genius and obscure beliefs instead of considered, sober and autonomous judgements was a sheer matter of nonsense, *Schwärmerei* (cf. R771, XV:337 (1774–5)). In addition, it was opposed to the project of the Enlightenment and autonomy Kant defended fiercely and famously in *Beantwortung der Frage: Was ist Auf-klärung?* (1784) (WA) and elsewhere.

erect posture. The particular organisation of the human kind was already prepared by an "organic power" (VIII:48) or "perhaps from a single procreative maternal womb" (VIII:54), as Kant adds somewhat sarcastically, being an all-pervasive force determining even the simplest organic creatures. The third *Critique* describes such a view as a dogmatic hylezoist account.⁴⁷³

Rather than using it as a regulative maxim or ordering principle. Herder exploits, in the words of Kant, the principle of continuity as "an idea that lies entirely outside the field of the observational doctrine of nature and belongs merely to speculative philosophy" (VIII:54), thereby obscuring all available and established concepts adopted from reflections on the sensible manifold, rather than clarifying and specifying them, as for instance in the case of the movements of comets. Similarly, the accounts of homogeneity and heterogeneity are applied as principles to constitute the concepts, such that we are dealing with an all-pervasive force that is at the same time infinitely manifold. In this way Herder overwrites the concepts won by experience rather than applying maxims to organise and direct the activity of the understanding. Hence, Herder forcefully showed Kant what results if too much stress is placed on the principle of continuity and adaptation and everything is, so to speak, in constant flux and movement. 474 In his review of the second part of Herder's work Kant dismisses a system of evolution in view of the circumstances and argues for conservative constraints called 'dispositions'. Otherwise it is easy to multiply the amount of classes ad infinitum such that stable concepts, like that of 'human being', 'animal' and 'race', lose their sense. 475

Except for the account of race not much changes in the Bestim-mung, written in conjunction with the reviews. 476 Yet what makes the text interesting for our purposes is Kant's commentary on his decisions regarding the regulative principles of reason. He advises not multiplying the amount of explanations and sticking to one hypothesis instead of triggering the power of imagination to make

⁴⁷³Cf. V:392, 394. Cf. Lord (2011, 86 f.), Zammito (1992, p. 205).

⁴⁷⁴Cf. VIII:62.

⁴⁷⁵Cf. VIII:93 f.

⁴⁷⁶The first review appeared 06/01/1785 in the Allgemeine Literatur-Zeitung, the article appeared on 06/11/1785 in Berlinische Monatsschrift and the second review appeared in the Allgemeine Literatur-Zeitung, 15/11/1785.

up explanations for each of the immensely varied facts. 477 This advice to respect the *principle of homogeneity* seems directed at Herder whose work is – in the eyes of the reviewer – a "loose collection of random observations" (VIII:97) about various cultures from questionable sources.

In contrast, an apt explanation should consider the conservation of the species and its races over time and not accept sudden changes. This is the principle of continuity: nature does not make leaps. 478 As mentioned earlier, this discussion is not meant to criticise Herder or revive Kant's outdated and problematic contribution to the discussions of human race, but as an illustration of the application of the regulative principles. Only when the understanding has determined the concept carefully (here: determining the cause of the concept), do the principles regulate the organisation of the web of concepts towards systematisation. If this prescription is not followed, the inquiry results in dogmatic metaphysics, like Herder's hylezoism, leading to an immense manifold of explanations detached from experience. On the other hand we also encountered successful applications of reason's maxims, which asymptotically guide the understanding further towards systematisation. Anticipating the supposed overlap in 6.5, it is time to determine the status of regulation.

6.4 Status of Regulation

Having given an account of the regulation by reason of our inquiry into nature, we should pose the question what the *status* of regulation is. Often times, the role of reason is not taken into consideration by commentary, since it is assumed that the senses and the understanding are sufficient to make the necessary distinctions to subsume the objects of experience under the appropriate concepts for cognition. We have found indications for such a position previously; in 4.3, we saw that cognition is the conscious representation of a given object. According to such a position, the correspondence criterion and logical validity rather than coherence (non-contradiction) are relevant for cognition being true. On

⁴⁷⁷Cf. VIII:96 f.

⁴⁷⁸Cf. VIII:97 and page 215.

the other side of the spectrum one might find positions according to which these maxims are necessary conditions of the possibility of cognition, stressing the *condition of coherence*.

Kant is famously ambivalent when it comes to the status of reason's maxims. 479 One of the strongest claims in favour of the necessity of reason's contribution to the unity of cognition is the following citation from the first part of the Appendix:

"[i] For the law of reason to seek unity is necessary, [ii] since without it we would have no reason, and without that, no coherent use of the understanding, and, [iii] lacking that, no sufficient mark of empirical truth; [iv] thus in regard to the latter we simply have to presuppose the systematic unity of nature as objectively valid and necessary." (A651/B679, enumeration mine)

Here is my reconstruction of this nested argument: In the absence of the demand for unification no coherent (empirical) use of the understanding is possible ([ii] in citation). In the absence of a coherent use of the understanding no sufficient criterion of empirical truth is available ([iii] in citation). In the absence of a sufficient criterion of empirical truth, no (demanding kind of) cognition is possible. Herefore, presupposing the systematic unity of nature is a necessary condition of cognition ([iv] in citation), therefore presupposing the law of unification is necessary ([i] in citation). On the basis of this strong claim one should agree with Brandt (1989, p. 178) that "without ideas, concepts are incoherent and useless."

Two Accounts of Cognition

One might want to reject these strong claims in considering Kant's account of *cognition*. As I have laid out in 4.3, cognition in the work of Kant usually refers to a conscious representation of a given

 $^{^{479}}$ Cf. e. g. Pippin (1982, p. 211).

⁴⁸⁰The distinction between a demanding and a non-demanding account of cognition was prepared in 4.3 and will be developed in the current section.

⁴⁸¹Such a strong reading is also available in Geiger (2003) and Buchdahl (1992).

object.⁴⁸² Thus it is hard to maintain the claim that the maxims of reason are 'necessary' for cognition, since the possibility of cognition depends only on sensibility and the understanding: to have cognition, an object must be available to our senses and our concepts contain a content that can apply to the representation in an intelligible way. We could think of a sensible-dependent understanding operating without the guidance of reason, even though, further downstream, it will lack the integration into an order of knowledge by reason.⁴⁸³ Moreover, we have stressed above in 6.3 that reason organises concepts of the understanding without being directly involved in the intuitive relation to objects of experience, supporting the view that cognition is obtained without reason's involvement. Yet this does not mitigate Kant's subtle and complicated argument against a sheer heuristic application of the regulation by reason, as I will argue below.

My position is the following: The maxims are necessary for a qualified account of cognition, namely *systematic* cognition: "systematicity is that what raises ordinary cognition to the ranks of science" (A832/B860). This is in line with the example of

This position seems to be supported by the following reflection: "Ohne den Vernunftbegriff würden wir zwar Erfahrung haben, aber die collective Einheit der Erfahrung würde fehlen, als worin doch alle empirische Erkenntnis muß bestimmbar seyn." (R5555, XVIII:231 (1778–1789)) On this account, the weaker coherentist position by Chignell (2014, p. 593) is also too strong. On his account, if "there are positive coherence relations between the claim that such items are possible and our background knowledge of the way the world works", the claim is empirically possible and in all other cases it is not. A systematic argument against such a claim states that it excludes the possibility of falsifying claims and thus cannot explain scientific progress such as paradigm shifts.

⁴⁸²Cf. "cognition is a conscious representation of a given object and its general features" (Watkins and Willaschek 2017, p. 87).

⁴⁸³ Cf. "without the assumption of such an order, our view of science would have to be one of, say, statistically correlated relations between individual events, and not one with generally explanatory theories." ((Pippin 1982, p. 210)) Following Horstmann (1989, p. 164), the possibility of systematic order rather than the very possibility of empirical experience is threatened by the absence of the principle of purposiveness: "If in our pursuit of knowledge of objects we could rely only on the principles of pure understanding and a virtually infinite number of empirical laws, which could not be reduced to more general though equally empirical laws, then it would be impossible for us to think of nature as an entity of which we can have a systematically organised knowledge." For a similar view, cf. Longuenesse (1998, p. 164).

the way reason regulates our cognition of stellar dynamics (see page 220 f.). While regulation by reason is *additional* to ordinary cognition, it is *necessary* for systematic cognition and is directing towards extension along the available lines, as the end of the Transcendental Deduction of reason's schemata states clearly. ⁴⁸⁴ This distinction between a normal and a qualified account of cognition cannot solve Kant's ambivalence on this matter, yet it offers a place to rest between the two extremes.

Furthermore, this solution can handle Kant's coherence condition: systematic unity is taken as the "touchstone [Prüfstein] of truth for its rules" (A647/B675)⁴⁸⁵ and nothing in my suggested account denies this. Yet we have seen that we search for systematicity asymptotically and – at least from the perspective of reason – never arrive at a complete system; therefore one should be cautious to overstress this condition. Moreover, it is worthwhile recalling that it is *not* the only criterion of truth: chemistry, for instance, is not considered to be a scientific discipline by Kant, although it applies systematic methodology and therefore must accord with the coherentist constraint. 486 Finally, we should point out that the account of reflection can only be deployed within a less conservative environment; a strict coherentism is conservative insofar as it does not allow judgements incompatible with the current state of knowledge. In fact, the following chapter will argue that reflection is a highly dynamic activity, involving various levels of evaluation of stated hypotheses, up to the point of paradigm shifts.

Having said that, we must proceed cautiously with so-called 'best system interpretations'. According to these theories a

⁴⁸⁴Cf. "And this is the transcendental deduction of all the ideas of speculative reason [...] as regulative principles for the systematic unity of the manifold of empirical cognition in general, through which this cognition, within its proper boundaries, is cultivated and corrected more than could happen without such ideas, through the mere use of the principles of understanding." (A671/B699, latter emphasis mine)

⁴⁸⁵Cf. A645 f./B673 f., A651/B679, A654/B682. For the sake of comparison: Kant describes the laws of general logic as a "negative touchstone of truth" (A60/B84).

⁴⁸⁶This point is made in Friedman (1992a, p. 189) and endorsed in Allison (2004, 211 f.). Rightly, I think, Hanna (1993, p. 12) denies that coherence is Kant's only sufficient criterion of truth.

 $^{^{487}}$ This term has been adopted from the critical discussion of that view in

statement is true if it is in accordance with the prescriptions of the maxims of reason. On this view, reason anticipates the best system possible, namely one that has as few genera as possible (ideally: one) and as many species, subspecies, etc. as possible (ideally: infinite), while supposing a continuity among all objects. Furthermore, according to this view, the necessity of particular laws is entirely a function of their place within a systematic structure of such laws. 488 It follows that every bit of cognition must be in accordance with other related bits of cognition. On account of the best system interpretation, the truth of an empirical law is exclusively determined by the ability to be part of a best system projected by reason, making this the only criterion of truth available. Following the best system interpreters, without these guiding principles we would lack a criterion of truth. In light of the above discussions we must dismiss such an account.

Transcendental Account of Reason's Contribution

To frame the discussion and parse Kant's complicated and subtle argument in the Appendix on the regulative role of reason, the distinction between the *logical and transcendental role of reason* appears helpful. Although we did not encounter these technical terms before, it is fairly easy to comprehend their meaning in view of the previous discussion. Reason proceeds *logically* if it infers in a syllogistic manner, regardless of the content of cognition; insofar as the maxims of reason – unification, heterogeneity

Kreines (2009). The most important advocate of this view is Kitcher (1986, p. 214), stating for instance: "Thus our actual theories may fall short of truth because they are couched in terms that would not figure in an ideal systematization of ideal experience. I suggest that this development presents the main outline of Kant's theory of truth and of scientific progress. [...] his alternative proposal for a theory of truth is to see truth as obtained in the ideal limit of inquiry. Part of what gives sense to the notion of the 'ideal limit of inquiry' is the pursuit of certain goals – systematic unification prominent among them."

⁴⁸⁸Here is a citation which suggests something similar: "This unity of reason always presupposes an idea, namely that of the form of a whole of cognition, which precedes the determinate cognition of the parts and contains the conditions for determining a priori the place of each part and its relation to the others." (A645/B673)

and continuity (see page 215) – play a role in the process of inference, they are called logical principles, laws or maxims. As Both roles are related; following the inferential pattern in its logical mode, reason searches regressively for the undetermined to determine the determined to bring the series of consequences to an end. Reason proceeds transcendentally if it is the source of a priori principles. As as the presupposition of an object that yet never can be experienced, since experience cannot offer an example of complete systematic unity. A heuristic account will reduce the role of reason to the logical account whereas a transcendental account also considers the application of reason's principles (mediated by schemata).

I believe that, in order to do justice to the role of the underlying principles, we must accept the transcendental account. The transcendental status of the regulative use of reason is the main problem that Kant deals with in the Appendix and the Final Aim [Endabsicht].⁴⁹³ This does not mean – on my reading – that these principles gain the status of necessary conditions for the possibility of experience, but rather that the logical application is backed by a transcendental account.⁴⁹⁴ Put differently: while we could

⁴⁸⁹E. g. A655/B683.

⁴⁹⁰Cf. A307/B364.

⁴⁹¹Cf. A299/B355.

⁴⁹² Cf. A681/B709 and 6.3. Cf.: "[A]ll possible cognitions of the understanding (including empirical ones) have the unity of reason, and stand under common principles from which they could be derived despite their variety: that would be a transcendental principle of reason, which would make systematic unity not merely something subjectively and logically necessary, as method, but objectively necessary." (A648/B676)

⁴⁹³This is stated explicitly in A663/B691.

⁴⁹⁴Inspired by Grier (2001, p. 274), Allison (2004, p. 432) points out that nothing in Kant's account denies the possibility of a principle being logical and transcendental at the same time. I do agree that the transcendental principle entails the possibility of logical application; I do not agree with a purely logical application that explicitly denies a further transcendental application. A563/B591 offers textual support for Grier's and Allison's position.

In contrast, Horstmann (1989, p. 159) considers backing a logical principle by a transcendental principle an "odd claim in view of the fact that if there were such a transcendental principle, there would be no need to insist on the purely logical character and therefore merely regulative use

easily accept a logical role of reason, there is no guarantee whatsoever that the demands by the maxims are appropriate for nature. This is the additional assumption made by the transcendental account.

It would not make sense, for instance, to guide the understanding towards parsimony without presupposing nature to be ordered accordingly. In other words, aiming at systematicity is accompanied by the presupposition that it is appropriate to proceed that way. Having discussed some scientific cases of classification as exemplifications of unification and of the logical application of the maxims, Kant notes – in Baconian spirit – in the concluding part of that passage:

"One might have believed that this is merely a device of reason for achieving economy $[\ldots]$. Yet such a selfish aim [completing the system, T. M.] can easily be distinguished from the idea, in accordance with which everyone presupposes that this unity of reason conforms to nature itself; and here reason does not beg but commands, though without being able to determine the bounds of this unity." $(A653/B681)^{495}$

In this citation Kant stresses once more the important distinction between the logical and transcendental application of the maxims, echoing the worry we noted before, namely that the maxims do not agree with the order of nature. Thus, in unifying a certain set of objects, for example different kinds of salts, we follow the logical maxim not to multiply the principles needlessly: "entia praeter necessitatem non esse multiplicanda" (A652/B680 496 of this book). This principle of parsimony could be considered a purely methodological, or in Kant's terms, logical prescription. In these terms, this logical tendency of reason would be a merely convenient and efficient method to provide unity to the variety of rules of the understanding, yet it is in no way necessary and

of the principle of unity required by reason." He mistakenly takes the term 'transcendental' to be restricted to determining principles. This is the reason why he claims Kant introduces a new and less demanding sense of 'transcendental' in the third *Critique*. For a harsh critique of Horstmann's position, cf. Allison (2000).

⁴⁹⁵Cf. Bxiii, Kitcher (1986, p. 213), Ferrarin (2015, p. 51).

⁴⁹⁶Cf. V:182, 185, VIII:96 and page 7.

will in no way guarantee objectivity. 497 To follow such a maxim would only be self-serving and subjective if it were not backed by a transcendental principle. Having said that, the scientist who adopts the advice not to multiply the principles needlessly in his classification of the kind of salts will also presuppose, like everyone else, that such a unification is *appropriate* to describe the structure of nature. As a result, we cannot simply assume the logical principle without presupposing its objective status.

While the principle of parsimony is often taken as an "economical contrivance [Handgriff] of reason" (A653/B681)⁴⁹⁸, Kant's discussion reveals its transcendental character as an "inner law of nature" (A650/B678), i. e. a transcendental rather than a purely logical principle. That is how the transcendental principle of homogeneity backs the logical principle and how reason demands instead of begs for general maxims to approach nature.

Avoiding Psychologism

This set-up confronts us with a further challenge, namely that of *psychologism* as expressed by Pippin (1982, p. 214):

"He [Kant, T. M.] seems to assume that, armed with these general 'simplicity' and 'unity' rules, 'nature', as investigated determinately by the understanding, will simply 'fall into line', that we will just tend toward some unified, single comprehensive account of the world."

According to Pippin (ibid., p. 227), the application of reason's maxims is the clearest expression of Kant's error of 'imposition', a term denoting "that the *mind* imposes *its* own rules of unification on any material contributed by sensory experience" (ibid., p. 218). Thus, Pippin considers all of the regulative activity a *mere disposition*. While such an accusation would be valid if we only accepted the maxims of reason, since the "'simplicity' and 'unity' rules" in such a case are a matter of mere configuration of our mind, the situation changes if we take into account the

⁴⁹⁷This worry is expressed in A648/B676 and A653/B681.

⁴⁹⁸ Grier (2001, p. 272) and Brandt (1989, p. 181) refer to §30 of De mundi sensibilis atque intelligibilis forma et principiis (1770) (MSI) where Kant only assumes this heuristic account.

longer story told in the current section. The transcendental backing of these maxims goes back to the ideas of reason, such that the maxims are not mere dispositions but grounded a priori in reason's concepts. To avoid imposition we would need to show that the unity of apperception is "the only type of unity we could understand in experience" (ibid., p. 221). The point to make in this current section is that it is not a random constitution of our mind which we impose on objects, but that there is, for us, no other way to systematise cognition.

This points towards Kant's discussion of a counterfactual case. Suppose a world so diverse that every effort to reduce the amount of principles and to introduce some order must tragically fail. Even the brightest of all minds, Kant vividly imagines, would not be able to trace even the least bit of similarity, thus failing to arrive at concepts and to apply the logical maxim. While this resembles the alternative scenarios in the KU, the purpose of this fictional case is, on my reading, different.⁴⁹⁹

Rather than arguing for the necessity to presuppose nature's responsiveness to our mind, Kant argues in the Appendix that logical principles must presuppose transcendental principles since transcendental principles do not even allow the counterfactual case to become effective. We must, in other words, presuppose the applicability of the logical principles aimed at systematisation.

If the objects we recognise are not organised according to our leading maxims, these principles would be disproportional and "in contradiction with the design of nature [Natureinrichtung]" $(A651/B679^{500})$, thereby confusing the understanding and leading

⁴⁹⁹ Cf. A653 f./B681 and 5.4. A similar state is recalled various times in the KU (V:179 f.,185, 386, XX: 203, 209, 213) where the absence of the principle of purposiveness is imagined, yet we might note two important differences: i) in the KU the manifold of empirical laws is very big and confused "for us" (V:185), ii) the result of this state is more dramatic, namely a lack of "coherent experience" (V:185). Therefore, the principle of purposiveness is subjectively necessary for coherent experience. Hence, Kant concludes that we can read that the principle of purposiveness as "a subjective principle of reason for the power of judgement which, as regulative (not constitutive), is just as necessarily valid for our human power of judgement as if it were an objective principle." (V:404).
500 Cf. A660/B688.

us in false directions. This would be unfortunate, because the directions given by reason would be misleading rather than helpful, or, as he states elsewhere, the role of the logical maxims would be only subjective and not based on a priori synthetic principles. 501 Then, immediately after presenting the counterfactual case, Kant states what I take to be his *final and stable position*:

"The logical principle of genera therefore presupposes a transcendental one if it is to be applied to nature [nature_M, T. M.]". $(A654/B682^{502})$

Reason a priori demands nature to be, for instance, maximally homogeneous, otherwise our understanding would not find an application, as in the counterfactual situation. Elsewhere, Kant notes that the logical law would be "lacking sense and application" (A656/B684) if it were not grounded in a transcendental law. Thus, projecting systematicity is not just a contingent interest of reason, like Pippin (1982, pp. 218–227) assumes when he accuses Kant of psychologism, but has deeper roots in our principles of reason.

Following what has been said so far, it turns out that the distinction between constitution and regulation, much like the distinction between determination and reflection (see chapter 7), must be handled very strictly in order to allow the support of reason while avoiding the illusions prepared by reason. The concepts of reason are by definition supernatural and do not have a "congruent object in experience" (A661/B689)⁵⁰³. Therefore we lack the justification provided by a Transcendental Deduction to presuppose these ideas absolutely. But for the sake of regulation we have the permission to presuppose them for regulation:

"I can have a satisfactory reason for assuming something relatively (suppositio relativa) without being warranted in assuming it absolutely (suppositio absoluta). This distinction is pertinent when we have to do merely with a regulative principle which we recognize as necessary, but whose source we do not know, and for which we assume a

⁵⁰¹Cf. B363/A306, A649/B677.

⁵⁰²A similar position can be found here: A650 f./B678 f., A656/B684, A660/B688.

⁵⁰³Cf. A664/B692, note 444 on page 212.

supreme ground merely with the intention of thinking the universality of the principle all the more determinately, as, e. g., when I think as existing a being that corresponds to a mere and indeed transcendental idea." (A676/B704, emphasis mine)

This quote repeats the initial difficulty: the tendency of reason to install a congruent object of the ideas must be avoided at all ${\rm costs}^{504}$ without giving up the benefits of the principle of regulation for empirical cognition, whose "necessity [...] we acknowledge" (A676/B704), according to the citation. Kant is able to manoeuvre between both cliffs by what is called a relative presupposition ($suppositio \ relativa$) of such an object without allowing its existence. Otherwise, these principles would falsely have been taken to be constitutive and, in consequence, allow the kind of dogmatic metaphysics Kant is eager to avoid in the Dialectics. It is in support of my account of transcendental philosophy that Kant explicitly stresses the importance of this distinction between relative and absolute presuppositions for transcendental philosophy. 505

In the course of the Appendix Kant discusses such a fall-back into dogmatism in more detail, distinguishing between "ignava ratio" (A689/B717), i. e. the avoidance of immanent sources of cognition, recurring to a global purposiveness⁵⁰⁶, and "perversa ratio" (A692/B720), i. e. the presupposition of a divine creator to explain all phenomena. To avoid these mistakes, the principles of reason are thus said to be regulative: they do not constitute an object, like the mathematical schemata are constitutive predicates of every object, but regulate the rules applied by the understanding, leading the rules of the understanding towards further organisation and systematisation.

As a result, we might state that only in a particular sense is reason a necessary condition for experience, namely only in respect of demanding systematic cognition. Therefore, it cannot contribute in a constitutive way to cognition and is not a necessary condition

⁵⁰⁴Cf. A327/B383.

⁵⁰⁵Cf. A676/B704.

 $^{^{506}}$ Anticipating the discussion of the overlap in 6.5, such a material-external or relative account of purposiveness is explicitly denied in §63 and §67 of the KU.

for the possibility of cognition, but rather an additional insufficient condition. This does not reduce the status of the maxims to sheer heuristic or logical directives; the transcendental status needs be taken seriously insofar as all logical maxims are backed by transcendental maxims. As we have seen, this means that we must presuppose our query for systematicity to be appropriate in regard to the order of nature. In the following paragraph I will argue why this contribution by reason must be backed by the principle of purposiveness.

6.5 Supposed Overlap

It might seem like I have been preparing a collision from two sides. On the side of reason I have turned the regulative maxims into more than merely heuristic levers insofar as they are backed by transcendental principles (see 6.4). On the side of the KU I have offered a central role to the faculty (RPJ) and its transcendental principle, namely the principle of purposiveness. Under these conditions it might appear to the reader that the threat of an overlap of the underlying principle and the RPJ's activity with Kant's account of reason in the Appendix is severe. If that is indeed the case, it will become difficult to determine the additional value of the RPJ and the project of the KU in general. Consequently, this supposed overlap would become a true problem for the relevance of the current inquiry, which considers the contribution by the RPJ the constant element throughout the KU.

Yet here in the final section of this chapter, I will not accept the popular accusation of an overlap. By way of a first approximation I will discuss a note added later by Kant to his annotated version of the EEKU:

"Could Linnaeus have hoped to outline a system of nature if he had had to worry that if he found a stone that he called granite, this might differ in its internal constitution from every other stone which nevertheless looked just like it, and all he could hope to find were always individual things, as it were isolated for the understanding, and never a class of them that could be brought under concepts of genus and species." (XX:215 f., additional note)

While that note could easily be understood as a quest for systematisation, the exegetical challenge of an overlap is even bigger regarding the following citation on the principle of purposiveness:

"rather, this condition of the possibility of the application of logic to nature is a principle of the representation of nature as a system for our power of judgement, in which the manifold, divided into genera and species, makes it possible to bring all the natural forms that are forthcoming to concepts (of greater or lesser generality) through comparison." (XX:212 n.)

As elsewhere in the EEKU, a reader might get the impression that Kant discusses the process of constructing a (taxonomical) system. 507 As I have discussed quite extensively in 4.3, a taxonomy is an order in which the subordinated concepts entail all features of the higher ordered concepts plus one or more differentia specifica. Thus, if we classify something as an instance of granite, to adopt Kant's example, all features of the account of mineral are ascribed to this kind of mineral plus some other features, for instance its granular texture. According to the maxims of reason, we aspire to search for the highest genus while finding as many species and subspecies among the continuously organised fossils.

This reading of above passage offers enough reason to ask how the KU contributes genuinely to transcendental philosophy; according to such a narrative the principle of purposiveness is *also* solely concerned with the organisation of scientific knowledge, just like reason's maxims. A particular clear expression of this position can be found in Zuckert (2007, p. 5), who, by framing the principle of purposiveness as the "unity of the diverse", basically repeats the formulation of reason's principle of homogeneity.⁵⁰⁸ Described

more extensive discussion of this matter.

⁵⁰⁷ According to Peter (1992, pp. 53–65), the *EEKU* is closely affiliated with the Appendix, as it argues that the RPJ is led by the systematic ideal. Therefore the *EEKU* does not present a self-standing faculty with its very own principle. I will show below why this judgement is too harsh and the difference I aim to highlight is already entailed in these citations. 508 Cf. A647/B675 and page 215. In all fairness, it is hard to nail down Zuckert's exact position regarding this issue, but she does belief that the *KU* offers a better, rather than a different justification of the amenability of nature to our faculty (Zuckert 2007, pp. 32–35, 44). See also 5.4 for a

this way, the overlap with the application of reason's regulative principles seems obvious and the accusation valid.

Principle of Purposiveness to Systematise

Yet in the current case I do not think that such an overlapreading is particularly helpful or satisfying. It seems to me that in the first of the quoted passages Kant points out an assumption at work in the classification of the kingdom of minerals. While the genus-species-hierarchy definitely plays a role as soon as we want to determine a class of objects discursively, there is, on a more fundamental level, the assumption that the object can be considered as a member of a class of objects in the first place. This class of objects is, in Kant's own words, in accordance with the particular discursive constitution of our mind. Similarly, in the second quotation, Kant discusses a "condition of the possibility of the application of logic to nature" (XX:212 n., emphasis mine), but it is not implied that this is the *only* application of the principle of purposiveness. In fact, judgements of taste make a strong case for a wider application of that principle in reflecting on nature.

Surely, both quotes discuss the integration into a larger scientific hierarchy, whether this is Linneaus' outdated taxonomy (see 7.2) or Alexander von Humboldt's famous Naturgemälde, offering a more complex holistic picture of the living world (see 6.1). However, it is important to stress that what lies ahead of the systematisation is the assumption that the piece of granite is not just a sheer isolated object, but a member of a class of stones (granite), regardless of how different those members may be in regard of shape, location, colour, etc. I believe this to be the main point of the cited note. Without this presupposition, our inquiry could not be directed at a "system of possible empirical cognitions [Erkenntnisse]" (XX:208). Even though the principle

Düsing (1968, p. 42) also cites the second citation in support of the transcendental principles in the KrV and believes that the principle of purposiveness aims at "systematic unity" (44 ibid., translation mine). In this respect, he emphasises a continuity from the early cosmological writings through the Appendix to the KU, yet lacks sufficient attention to the differences, for instance between the critical and pre-critical approaches. See note 68 on page 50 for a more extensive critical take on his stance.

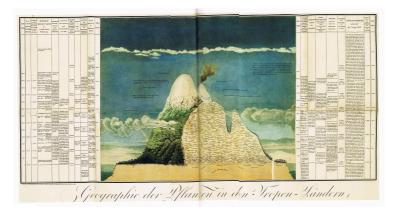


Figure 6.1: Alexander von Humboldt sketched this *Naturgemälde* in front of the Chimborazo volcano in Ecuador upon an epiphany that allowed him to envision the holistic connection of all living beings in regard of their environmental conditions.

of purposiveness is a necessary presupposition to develop an order of nature, it is not identical to systematisation. As soon as we start classifying, among other modes of inquiring into the natural world, discursive access to nature is implicitly demanded; we expect to recognise features such that concepts, standing in a conceptual hierarchy, can be generated, otherwise we would lack directions for how to proceed.

Let us assume a further example. Suppose for instance that we are searching for a single genus that entails a feature shared by all subordinated species, since Ockham's razor prescribes that we reduce the amount of principles in play. Additionally, we assume this principle to be appropriate to search for regularities in nature such that nature is economical in regard to its principles. The first logical maxim of reason is a methodological clue backed by the second transcendental principle (see 6.4). Yet these related principles of reason are not sufficient to expect to find the higher genus in the first place. Rather, the application of the regulation by reason regulation depends on the transcendental principle of the RPJ, stating that nature is responsive to the particular constitution of our mind.

In sum, my position is as follows: the principle of purposiveness

is a necessary condition to apply reason's maxims. Without the RPJ's principle, the maxims of reason would not be applicable, since we would lack the fundamental presupposition of nature's responsiveness to the peculiar character of our mind. We would, in other words, be lacking instruction in how to approach the sensual manifold during our reflective activities.

Overlap-argument Unraveled

To unravel the overlaps, I will – after these introductory remarks – consider in more detail the accusation that has been lodged by commentators ever since. 509

 $\overline{^{509}}$ Following Schopenhauer (1977, p. 648) many acclaimed authors have argued for an overlap. According to Buchdahl (1992, p. 209) the act of reflection is identical to the hypothetical use of reason. According to Kuhlenkampff (1978, p. 183), the systematising task of the RPJ and hypothetical reason are basically identical; the idea of a 'systema naturae' is in his reading the leading principle of the RPJ (cf. ibid., 35 f.). Following Stadler (1874, pp. 36-41), the principle of the RPJ overlaps with the principle of continuity while reflection is identical with hypothetical use of reason (ibid., p. 43). The main argument of Liedtke (1964) states that the RPJ and its principle is already entailed in the KrV, therefore he fully endorses the overlap-argument (see, for instance, his extensive comparison of similar passages in both works, cf. Liedtke (ibid., pp. 109– 18)). Referring to B681 f., Liedtke (ibid., p. 151) ascribes the principles of reason (homogeneity/continuity and heterogeneity) to the RPJ. According to Kitcher (1994, p. 254) the Introduction to the KU and the Appendix have the same message. Similarly, Abela (2002, p. 251) assumes that the Appendix and the KU offer the same transcendental principle for the same systematising activity. Horstmann (1989, pp. 165, 172) explicitly adopts the overlap: "The solution to this problem proposed in the third Critique competes with an answer Kant has already outlined in the KrV [...] reflective judgement was assigned a function that in the KrVhad been given to reason in its hypothetical use." The same is true for Friedman (1992b, p. 251): "In other words, what the principle of reflective judgement actually generates here are merely the heuristic or methodological principles presented in the first Critique as products of the regulative use of reason at A652–663/B680–691." Guyer (1992, p. 20) too adopts the overlap: "Whereas the Critique of Pure Reason had assigned the search for systematicity to the faculty of reason, [...] the Critique of Judgement assigns it to the faculty of reflective judgement" (similarly, Guyer (1990, p. 17)). Ginsborg (1990, p. 65) seems to believe that "reflective judgement is not in the first instance a capacity for the higher-level systematization of empirical concepts and laws, but rather a faculty which makes it possible to bring objects under empirical concepts in the first place." Yet elsewhere she still takes purposiveness as "the

For reasons of simplicity I have usually made note of the overlapargument without further qualification, but since we are dealing with an exercise of a faculty, an accompanying principle and a result of that exercise, we should be more accurate and make the relevant distinctions. Let us start with the latter, the result of that activity. I suggest that we speak of an *overlap* primarily when the Appendix and the Introduction to the third *Critique* offer a solution in response to the same epistemological problem, namely how are we able to systematise the manifold of empirical nature? In considering the literature presented in note 509, we might assume that if we can identify an overlap in the result of the exercise, the RPJ inherits the previous role of reason and/or the principle of that exercise of the faculty is the same. Therefore I consider the result of the activity to the primary indicator.

If an overlap is detected in regard to the exercise, the principle or the result of the exercise, the relevance of the contribution of the KU to the transcendental project is threatened, with an immediate impact on the relevance of this study. It is therefore crucial to formulate a satisfying reaction. I will discuss the strategic options in response to the supposed overlap in order to arrive at my own position, which consists in a denial of the allegations. Needless to say, we are dealing with an abstraction and many authors do not simply fit in one of the listed positions. Here are the options:

- 1 Accept that both faculties execute the same operation mutually.
- 2 Deny that this supposed overlap is a threat to the coherence of Kant's critical philosophy at all.
- 3 Endorse the overlap,
 - (a) prioritise the regulative role of reason and consider the RPJ to be superfluous.
 - (b) prioritise the third *Critique* and consider the Appendix to have become superfluous in the wake of the critical century.
- 4 Deny the existence of an overlap while proposing another task and scope for the RPJ.

principle of the systematicity of nature" (ibid., p. 75).

The first option, I suggest, will lead to a conflict of responsibilities of the faculties and therefore does not belong among the serious possibilities. To my knowledge, this option has not been proposed in the literature.

The motivation for the second option might be a systematic interpretation that distances itself from these kinds of exegetical matters. This might be a valid approach in itself, but since the problems of the current inquiry are given by the inconsistencies of the Kantian *corpus* it would be irresponsible to drop this exegetical methodology as soon as serious problems arise. In fact, I do think that this impasse motivates serious questions concerning the status of both faculties and that this opportunity should not be neglected in a sympathetic reading. ⁵¹⁰

The remaining options are willing to face the threat. The options collected under option 3 endorse the overlap, requiring us to exclude the one or the other path, with bad consequences for either the hypothetical use of reason or for the RPJ. The first path, 3(a), is often chosen by interpreters mainly interested in Kant's methodology of science. A prominent example is Friedman (1992b, pp. 251–3), who states that: "the principle of reflective judgement [...] in no ways [sic] goes beyond the methodological regulative maxims already enumerated in the first Critique". 511

The other option, 3(b), suggests that there is a very different answer to a very similar problem given in the third *Critique*, making the first *Critique*'s account superfluous while overloading

⁵¹⁰For instance, Allison (2001, 31 f.) describes the task of the principle of purposiveness as systematising nature's laws without giving any notice of the pitfall we are discussing on these pages.

⁵¹¹ Further below, Friedman (1992b, p. 263) argues for his preference: "the only strictly transcendental principles we have for coming to terms with nature as empirically given are those of reflective judgement, and these, as merely regulative, necessarily fail to make it clear how the domain of the properly empirical is to be determinately connected with the a priori constitutive principles of the understanding as well." I would like to note parenthetically that this conflicts with the central role Friedman ascribes to the principle of reflective judgement for the transition from metaphysica generalis in the KrV to metaphysica specialis in the Opus Postumum (ibid., pp. 245, 250). Moreover, although he has explicitly accepted an interpretation that considers the broader (aesthetic) account of the application of reflection in the third KU in Friedman (2003), he sticks to his initial interpretation in his later Friedman (2013, pp. 589–91).

the contribution of the KU.⁵¹²

Moreover, in line with 1.4.1, I would like to present two arguments against a reduction of the RPJ's activity to systematising our cognition of empirical nature. Such a reduction is shared by both positions listed under 3. Firstly, aligning the principle of purposiveness with the systematising maxims of reason depends on a narrow account of the principle of purposiveness. Throughout this study I have been eager to emphasise the principle's presupposition of nature as being responsive to the particular character of our mind – the judgement of taste reveals this principle (see 2.2.2). Hence, according to this regulative principle, objects of nature are such that we can discover empirical features, as grounds of cognition, to acquire concepts in the act of reflection. Although this may imply systematisation, since concepts mediately refer to objects, as 4.3 illustrated perspicuously, this is not the sole necessary consequence of nature's responsiveness.

Surely I do not deny that systematisation can play a role in concept acquisition by reflection; in fact I will present an example of concept acquisition in our next chapter where systematisation and concept acquisition are interdependent. Moreover, I do not want to deny that the principle of purposiveness is manifested, among other things, in reason's maxims. The point is rather that nature's responsiveness to our mind is not identical with the systematising aspirations of reason's maxims; the unity of experience does not depend on the degree of systematisation of our cognition of empirical nature.

Secondly, the emphasis on systematicity cannot acknowledge

⁵¹²Stressing the evolutionary aspect of Kant's thought, Ferrarin (2015, p. 275) supposes the RPJ to take over tasks formerly ascribed to reason, such as induction, analogical inference and regulation. Zuckert (2007, p. 52) believes that Kant's insistence on the necessity of systematicity becomes "a much less peripheral, optional goal for judging" in the KU, yet the problem and the answer do not differ fundamentally from the Appendix (cf. Zuckert (ibid., p. 44); however, on page 32 she proposes a distinction similar to mine). According to Guyer (2005, p. 29), the RPJ even replaces Kant's account of schematism: the role of the RPJ is "to attempt to apply the pure concepts of the understanding to empirical intuition through intermediate empirical concepts which represent a systematisation of our experience". In the following lines the introduction of this new faculty is even described as a "retraction of the first Critique's doctrine of objective affinity".

and incorporate the role of reflection in judgements of taste and judgements about organised matter. Both judgements, as examples of reflective judgements, do not follow systematising aims and do not contribute to cognition. We have seen in chapter 2 that ascribing beauty or natural purpose to an object is not a determination of the object. Rather such judgements express our ignorance concerning the causal order of nature, being purposive without a purpose. Hence, to reduce the principle of purposiveness to systematicity implies a fall-back into a fragmentary treatment of the KU; if anything, such a treatment can only do justice to the published Introduction and the EEKU, even though I have at the outset of this section argued why this does not even apply to the Introductions.

Priority of the KU

According to option 4, which I agree with, both accounts do not overlap, because the exercise, the result of that exercise and the principle of the RPJ differ from the positive contribution of reason. Unlike option 3, this position takes a continuity view in regard to Kant's work, assuming – broadly – that the KU, while depending on the other critical works, offers a genuine contribution to the critical system. Hence, the KU supervenes on the contribution by reason while additionally introducing a further principle allowing the application of reason's principles to systematise our cognition. Even though Kant tends to smooth over tensions within his critical system, and hardly takes notice of this supposed overlap, we still find confirmations of the results of the Dialectics in the KU in support of my suggested reading. In support of my suggested reading.

⁵¹³Versions of this view have been proposed by Förster (2000), Förster (2012) and Peter (1992). Zuckert (e. g. 2007, p. 37) sometimes suggest that the principle of purposiveness is additional to reason's regulative principles, but from my perspective she does not demarcate the difference sufficiently. I have considered her position in more detail in 5.4.

⁵¹⁴A continuity view is also expressed in Zuckert (ibid.), Allison (2000, 79 f.), Ginsborg (2015), Förster (2012) and Rodríguez (2012, p. 191).

⁵¹⁵E. g.: "Thus the critique [i. e. KrV, T. M.], which looks to the faculties of cognition as a whole, concerned with the contribution that each of the other faculties might profess to make to the bare possession of cognition from its own source, is left with nothing but what the understanding

Earlier in this section I have argued that reason's maxims are not applicable as long as we do not presuppose the applicability of our conceptual representations to objects of nature. Insofar as the principle of purposiveness does not entail directives of how to systematise cognition, the logical maxims of reason become relevant and necessary. At the same time the polemic discussion with Herder in 6.3 clearly showed that it is a matter for reflection to handle the norms for investigation appropriately in order to avoid a misuse of the speculation of reason. Moreover, this relation of dependency is also expressed by the manifestation of the principle of purposiveness in the maxims of reason. This transcendental principle is the *source* of these maxims and therefore has a more fundamental status.

It is true that one will find an account of nature's purposiveness in the context of the refutation of the physico-theological argument in the KrV^{516} , but we should keep in mind that the formulations in the KrV and the KU are different: the KrV merely states that nature has been organised by a highest reason⁵¹⁷ while the KU states that nature is ordered by a super-sensible intellect for us in concert with the discursive character of our mind. Kant refutes the physico-theological argument since the transition from causes to "obscure and unprovable grounds of explanation" (A626/B654) cannot be justified while the principle of purposiveness is explicitly justified as a transcendental principle in the Deduction (see chapter 5). In this respect I do not see a relevant overlap.

prescribes a priori as law for nature, as the sum of appearances (whose form is likewise given a priori); but it refers all other pure concepts to the ideas, which are an extravagance for our theoretical faculty of cognition, but not thereby useless or dispensable, but which rather serve as regulative principles: partly in order to restrain the worrisome pretensions of the understanding, $[\ldots]$ and partly in order to guide itself in the contemplation of nature in accordance with a principle of a completeness to which it can never attain, and thereby to further the final aim of all cognition." (V:167, $2^{\rm nd}$ and $3^{\rm rd}$ emphasis mine) In the EEKU we find, moreover, a strict distinction between the RPJ and reason: "Now here arises the concept of a purposiveness of nature, indeed as a special concept of the reflecting power of judgement, not of reason; for the end is not posited in the object at all, but strictly in the subject and indeed in its mere capacity for reflecting." (XX:216, emphasis mine)

 $^{^{516}}$ Cf. A620/B548–A630/B658. Cf. A625 f./B653 f. for the spelled out physicotheological proof.

⁵¹⁷Cf. A627/B655, A686/B714, A673/B701.

Having approached the situation in more detail, we find that in each of the various respects can detect no overlap. Concerning the result of the activity we find on the one hand reflective judgements as well as acquired concepts, rules and laws generated by the RPJ and on the other hand a further systematisation of cognition guided by reason. Reason only contributes to the qualified systematic account of cognition (see 6.4) whereas the RPJ adopts a basic attitude towards nature that cannot be described in sheer epistemological terms. Concerning the principle we have seen that the logical and transcendental maxims of reason are manifestations of the more fundamental principle of purposiveness. Finally, concerning the activity of reason and of the RPJ I will present a more detailed comparison in 7.2, vet I can already reveal that the accusations do not hold up. That way, we can avoid the unfortunate situation of having to give up the relevance of one of the two faculties and we have determined their mutual dependency. By way of summary we can state that the absence of the RPJ would have more severe consequences than the absence of (theoretical) reason: in absence of reason the possibility of systematising cognition would be excluded, in absence of the RPJ we could not generate reflective judgements. such as judgements of taste and teleological judgements, and we could not reflect on empirical nature.

6.6 Conclusion

This chapter is concerned with an important objection, which, if effective, would have severe consequences for the relevance of my treatment of the KU. According to this objection, the execution, the principle and/or the result of the execution of the RPJ and of reason overlap. This would either make the RPJ and its governing principle of purposiveness superfluous or it would imply a strong historical discontinuity. In the first case it becomes hard to uphold the coherence of the KU, opening the door for piecemeal readings, while it would become isolated from the other critical works in the second case.

On my reading, the KU offers a necessary condition for the application of the principles of reason while the latter are necessary

to direct the understanding towards systematicity. Thus, they are not just compatible, but the application of the principles of reason even depends on the principle of purposiveness: it is, as I have tried to emphasise in 6.5, a "condition of the possibility of the application of logic to nature" (XX:212 n., emphasis mine). In 5.4 maxims were already described as manifestations of the principle of purposiveness. As soon as we start reflecting, discursive access to nature is implicitly demanded; we expect to recognise features such that concepts can be generated, otherwise we would lack any clue how to proceed. Reason's principles, on the other hand, are necessary for systematising our cognition - this is not an activity the RPJ can execute. However, I have made clear that this is a qualified systematic account of cognition. Moreover, we saw that the positive contribution of reason can – in theoretical respect – only be epistemic, namely as guidance of the understanding towards systematic knowledge, whereas aesthetic judgements most clearly show that the contribution by the RPJ exceeds the realm of cognition.

The answer to the threat of an overlap has been developed from a particular reading of reason's contribution to the systematisation of cognition. This reading is characterised by an emphasis on the role of the transcendental principles backing up the logical principles. We do not just apply certain maxims out of convenience, but we additionally believe this to be appropriate to approach nature. That way, these maxims are not merely dispositions we happen to apply, but they can be traced back to their source in reason, such that the accusation of psychologism falls flat (see 6.4). Moreover, I have in 6.3 offered a middle ground between a heuristic reading, according to which regulation is optional, and a strong reading stating reason's contribution as a necessary condition for cognition. Regulation is, I have argued, necessary for directing and organising cognition, but it should not be mistaken for a determining condition for cognition. Only the qualified account of cognition depends on reason's maxims.

This solution not only avoids the pitfalls discussed in the literature, but it additionally helps to situate the contribution of the RPJ. In the next and final chapter I will explore this activity by the RPJ in more detail.

Chapter 7

Reflection

7.1 Orientation

In the previous chapters we discussed the principle of purposiveness as a genuine transcendental principle of the RPJ. This principle presupposes the adjustment of nature to the peculiar character of our mind. Only insofar as this principle is presupposed can we perform the act of reflection, which was previously described as the search for conceptual representations, mediately related to objects through features, to refer to representations we encounter in nature. In this context searching is taken as a process of selecting features in order to allow a classification, including reflection on the method, means and selection criteria.

In this final synthesising chapter I would like to study this activity in more detail, and moreover argue that this activity is solely guided by the principle of purposiveness. Whereas the determining power of judgement relies on the understanding's schemata to determine objects, the RPJ gives itself a directive, namely the principle of purposiveness, in the absence of a concept under which to subsume the representation. Without the presupposition of a purposive order among empirical nature, this order would not be "fitted for our power of comprehension [Fassungskraft]" (V:185), and reflection would be arbitrary and blind, "without any

well-grounded expectation of its [reflection's, T. M.] agreement with nature" (XX:212). In the two previous chapters we could also observe that reason's logical and transcedental principles are also dependent on the principle of purposiveness.

We have already been in the position to observe two different accounts of reflection in chapter 2. I will use this opportunity to recall the insights we have won; we saw clearly how the RPJ enables both teleological and aesthetic judgements. They can be characterised ex negativo, namely as judgements lacking determination, such that "x is a natural purpose" and "x is beautiful" are no determinations (judgements of the form "x is y"). Rather, these reflective judgements present the outcome of a reflection on that object. In the case of aesthetic judgements the moment of reflection comes in at a point where the search for concepts transforms into a sheer reflection on the self-animating play of the faculties. In the case of teleological judgements an internal purposive order is regulatorily ascribed to an organised object. Such a judgement states that the parts and the whole of the object are both cause and effect of each other at the same time, setting the conditions under which we are able to investigate organised matter. In both cases, reflective judgements are such that one does not subsume x under a predicate in a determining judgement, but rather expresses a state of the subject in relation to the object.

I argued that both accounts provide an important contribution to Kant's account of reflection, yet there are more accounts I would like to explore. Reflection was considered to be a basic activity of the intellect in the 18th century. A look at the works of rationalists like Wolff and empiricists like Locke reveals a variety of applications of this concept. In view of this historical situation, it is no surprise that, in the words of Henrich (1994, p. 39), "Kant employs many variants of it and evidently assumes it is familiar to everybody." The latter observation explains the impression, taking the third *Critique* at face value, that this act of reflection is not a very central theme. Except for some scattered remarks throughout the book the act is only explicitly discussed in the Introduction; and in the final published Introduction there are

⁵¹⁸Longuenesse (1998, p. 121) distinguishes four "different facets of a single reflective act of the understanding". See also Merritt (2015).

even fewer words devoted to it than in the first version. This situation turns it into a rather demanding, if not despairing, task to offer an interpretation of the work, at least if you happen to believe that this act of reflection, guided by the principle of purposiveness, unifies the various parts of the book. I have already mentioned in chapter 1 that some interpreters, for the reason mentioned or for others, tend to overlook the reflecting activity and focus on specific themes such as beauty and natural purposes. I have, additionally, pointed out in chapter 1 that such a fragmentary approach is sub-optimal for a unified reading.

In order to show that aesthetic judgements and teleological judgements among others are instances of one and the same reflecting activity, I will devote this chapter to presenting an overview of the different accounts of reflection deployed throughout the critical work. The main idea is that in contrast with determination, reflection puts the subject in a responsive position, enabling her to gain insight into the appropriate rules to apply by searching and selecting a pattern among the features. The result can be a generated concept, but also an insight into a causal structure or dependencies within an order of concepts. This might even, but must not, be directed by an explication and consultation of our rational norms and representational abilities, even on the level of the paradigm we are operating within (including: what is observed, the kind of questions asked, acceptable predictions and the way an experiment is to be conducted). 519

All of these accounts of reflections depend on the same activity and, moreover, they are all guided by the presupposition that nature has been organised in accordance with "that specific form the power of judgement demands" (IX:94), i. e. conceptual representations. This is also true for further activities like induction, analogical reasoning and concept acquisition. Although I will in this chapter associate reflection mostly with the theoretical application, there is nothing in my account that excludes practical reflection, namely consideration of the appropriate kind of action in a particular situation. In the latter respect, nature's responsiveness could also be understood as an incentive that allows us

⁵¹⁹I am referring to the account of paradigm by Kuhn (1996): "universally recognised scientific achievements that, for a time, provide model problems and solutions for a community of practitioners".

to realise our (moral) ends (cf. 1.4.2).

This chapter can be taken as a catalogue of different kinds of reflection. For every kind I seek to emphasise the regulative task by the transcendental principle of purposiveness in order to show their common source (see 6.5). I will in 7.2 start with the general account provided in the Introductions to explain why its activities are unlike reason's inferences, thereby avoiding a certain variation of the overlap-argument. Subsequently, I will in 7.3 move on to the threefold logical act discussed in the Lectures on Logic and elsewhere in an attempt to align that activity with the account of reflection in the KU. Eventually, in 7.4, going through all those different kinds of reflection, I will argue why the relevant account of reflection is guided by the principle of purposiveness. The account of transcendental reflection in the Amphiboly, which does not depend on that transcendental principle, is considered as a test case for the effectiveness of my criterion.

7.2 A Determining and a Reflecting Activity

The power of judgement is, generally speaking, a faculty with the task of subsuming the particular under general representations. A determining power of judgement is already discussed in the first Critique as 'power of judgement', Urteilskraft, the task of which is "determining whether something stands under a given rule (causus datae legis) or not." (A132/B171 520) Its reflective counterpart – including the transcendental principle – must be considered as the main innovation of the KU, as I have argued previously. In both cases the particular is judged in respect to more general representations by judging. For instance, determining an intuition as a 'substance' means considering it to be a persisting element in space and, as such, distinguishing it from other representations. 521 The determining power of judgement therefore depends on the concepts and rules prepared by the

⁵²⁰This phrase reappears almost literally in the Preface to the KU, V:169.
⁵²¹Cf. "to cognize it determinately, i. e., be able to anticipate that through which its empirical intuition is differentiated from others." (A178/B221).

understanding and does not have its own a priori principles or concepts. 522 In that case the particular is subsumed under an available general representation.

Kant stresses that some degree of practice is involved in judging which rules must be followed⁵²³: regardless of how studied the understanding is, the lack of facility in applying them correctly will turn those rules into static formulas rather than principles for application in particular cases.⁵²⁴ While this is a matter of custom and habit, and therefore provides rather infertile soil for transcendental philosophy, the employment of the pure principles of the understanding does demand schemata to determine the conditions of their employment.⁵²⁵ This transcendental application, expanding the topic of this dissertation, is entailed in, but does not exhaust, the use of the determining power of judgement. What I would like to draw attention to, though, are the differences with the use of the RPJ;

"[T]he reflecting power of judgement is supposed to subsume under a law that is not yet given and which is in fact only a principle for reflection on objects for which we are objectively entirely lacking a law or a concept of the object that would be adequate as a principle for the cases that come before us." (V:385).⁵²⁶

While determining, we consider the particular under an available general representation that refers adequately to the particular by way of a ground of cognition. During the act of reflection the particular is not considered in regard to a 'sufficient' concept, but in regard to a principle about concepts "for which we are objectively entirely lacking a law or a concept of the object" (V:385). That is the principle of purposiveness, stating that nature is designed in concert with the kind of faculty we have. In the case of reflection the fitting general representation is absent and must be looked for, since a discursive intellect is not satisfied

⁵²²Cf. V:179, XX:202.

⁵²³Cf. "the power of judgement is a special talent that cannot be taught but only practiced" (A133/B172, cf. Baumgarten (2011, §609)).

⁵²⁴Cf. A134/B173.

⁵²⁵Cf. A135 f./174 f.

⁵²⁶Cf. V:179, 385, IX:131, XX:209 f. Cf. "the power of judgement, which has no concept ready for the given intuition" (XX:223).

by a particular lacking a conceptual determination. Subsuming objects under rules is a need of our intellect, as we saw in chapter 5. Thus, reflection, taken broadly, is the activity of searching for concepts, rules and laws in order to continue the process of determination, yet without a guarantee of success. ⁵²⁷

This account of RPJ, unlike the determining power of judgement, is particularly interesting for a transcendental philosopher, since we are dealing with an *independent faculty* that gives itself its own genuine a priori principle.⁵²⁸ Where the determining power of judgement is guided by the rules of the understanding, and does not depend on a principle of its own, the RPJ is guided by its own principle. In this context, Kant sometimes deploys the term 'heautonomy' (V:185, XX:225), indicating the RPJ is both source and recipient of the principle of purposiveness without a purpose. In other words, the RPJ presupposes the form of a general representation (a concept) without, in fact, having discovered a relevant conceptual representation. Without the presupposition that nature is ordered in concert with our discursive faculties, the reflective activity could be realised, since it would not be directed at finding concepts, "the form which is required for the power of judgement" (IX:94⁵²⁹). In this context we might express ourselves more explicitly by saying that the principle is a place holder for a rule vet to be discovered.

According to common belief among interpreters, reflection and determination are "not opposed, but complementary, and indeed, inseparable"⁵³⁰. In contrast, I think it is important to stress the distinction between reflection and determination. Although it cannot be denied that these different activities of the same faculty go hand in hand, as all powers and faculties of the mind, das Gemüt, ultimately cooperate from a holistic point of view, a transcendental account only can be achieved by isolating the

(1938, p. 13), Teufel (2012, 306 f.).

⁵²⁷Cf. Düsing 1968, p. 64.

⁵²⁸Cf. XX:216 (cited in note 515 on page 245), 202, V:185.

⁵²⁹Cf. R2851, XVI:546 (1770–1?). Conversely, Kant opens up the possibility of sensual material being so manifold such that it is "not fitted for our power of comprehension" (V:185). For Kant's account of concept, cf. 4.3.
⁵³⁰Longuenesse (2005, p. 231). Similar views are presented in Friedman (1992b), Zuckert (2007), Liedtke (1964, p. 150), Longuenesse (1998, chap 6), Allison (2001, pp. 18–20), Pippin (1982). Differently, Marc-Wogau

faculty. Only by isolation it is possible to find out the principle, source and the domain of that faculty. Moreover, the supposed inseparability of reflection and determination conflicts with a judgement of taste, expressing – from a transcendental point of view – the impossibility of arriving at an adequate concept and, in consequence, of determination. Again, in the Teleology, Kant is keen to distinguish between determination and reflection to avoid the assumption that the RPJ's maxim concerning the teleological description of the generation of natural purposes is also an 'objective principle' (V:389) of nature.⁵³¹

That nature is organised in accordance with our cognitive faculty by a supersensible being is *not* a metaphysical claim, but rather a regulative principle to guide our search for cognition. The critique of dogmatic teleological systems in §72–3 should be treated in that respect (see 2.3.3). While reflection surely can lead to determination, it is important to treat them separately.

Inferential Activity of RPJ

I would like to investigate in more detail what this activity consists of. A good way to characterise the reflecting activity is to turn to the following notes in Kant's copy of Meier's Vernunftlehre (1752), the main source for the Lectures on Logic Kant held throughout his career. Especially helpful in this respect is the well-formulated note R3200 (XVI:709) (1780–89) in a section on the learned inferences of reason, comparing the inferential activity of the understanding, RPJ and reason. Kant does not state explicitly that the reflecting power of judgement is meant in this note under point 2, but it follows quite clearly, I believe, from the reflecting activity mentioned.

"1. Inferences of understanding (are immediate inferences) infer from the general to the particular or from the partic-

⁵³¹ This is stated clearly by the following citation: "It is therefore an entirely correct fundamental principle for the reflecting power of judgement that for the evident connection of things in accordance with final causes we must conceive of a causality different from mechanism, namely that of an (intelligent) world-cause acting in accordance with ends, no matter how rash and indemonstrable that would be for the determining power of judgement." (V:389, cf. V:379, 383, XX:220)

Faculty	Relation	Direction	Logical Form
under-	immediate	general to particular/	determining
standing		particular to particu-	judgement
		lar	
RPJ	mediate	particular to general	induction
			analogy
reason	mediate	general to particular	syllogism

Table 7.1: The following distinctions are based on R3200 (XVI:709) (1780-89).

ular to the particular (but immediately), never however from the particular to the general, because they should provide determining judgements.

2. Inferences of judgement move from the particular to the (empirically) general (are ways of advancing from the *individuis* to the *generibus*), from several things belonging to a certain type to all or from several characteristics in which things of one type agree to all others insofar as they belong to the same principle. Hence they are nothing but ways of arriving from particular concepts to general ones, hence of the reflecting (not determining) judgement, hence not to determine the object but the way over of the reflection upon the same, in order to arrive at knowledge of it. (are inferences to arrive at preliminary but not at determining judgements. – Analogy and induction.)

Are the inferences of judgement immediate inferences? No, they rest on the principle of judgement: that namely much without a common ground would cohere in itself, hence that what thus inheres in it in this way becomes necessary from a common ground. (– Analogy, Induction)

3. Inferences of reason are (mediate) inferences from the general to the particular (per iudicium intermedium.)" (R3200, XVI:709 (1780–89), translation mine)

Even though Adickes was unable to determine the exact date of the writing, looking at the unusual formulation of the principle of purposiveness ⁵³², we are not dealing with a full-fledged ac-

⁵³²The 'common ground' is, as I assume, the supersensible designer, spontaneously creating nature in accordance with our mind such that the

count of the activity in question. However, we still find here an exceptionally clear comparison in terms of the mediacy of the inference, the direction and the logical form of these three kind of inferences. These points are presented in table 7.1 for the sake of overview.

Unlike inferences by the understanding and reason, reflective inferences proceed from the particular to the general. The understanding and reason apply available concepts or judgements to particular instances of these universals. Instead, the RPJ proceeds, as it were, bottom-up, searching for some rule by way of "empirical inferences" (R3276, XVI:755 (1770–79)), namely inductive and analogical inferences. *Induction* infers from many instances of a kind to a rule about that kind. *Analogy* infers from a comparison between two instances of two kinds to further features of one those kinds. 533 This direction affects the modality of the conclusions, being *not* necessary, but 'preliminary', *vorläufig*, or 'contingent' in terms of the $KU.^{534}$

Furthermore, the RPJ's inferences are *mediate*, like reason's inferences, that is, they demand a rule to move from the premise to the conclusion, whereas the understanding moves immediately from the general to the particular. This point deserves some elaboration: for instance, if it is true that all A are B, it is also true – in respect of its quantity – that some A are B, or – in respect of its relation – that what is not B, is not A. Such an inference does not need an intermediate step and therefore is referred to as immediate within the context of general logic. In contrast, the judgements of the RPJ are mediate, like analogical

contingent status of our cognition of empirical nature is at the same time 'necessary', "as the concept of nature demands" (V:179, s. epigraph).

⁵³³Cf. Liedtke (1964, 125 n.), cf. IX:132 f. Here is a description of induction and analogy: "induction: ein Merkmal in Vielen – ergo in allen von derselben Art; doch muß hiebey auf die Bedingung acht gegeben werden. Analogie: viele Merkmale in einem, also auch die übrige alle, die mit derselben Bedingung verknüpft seyn." (R3283, XVI:757 (1776–78 or 1780–90)), cf. R3280, XVI:757 (1776–9)). Interestingly, in R3276 (XVI:755 (1770–79)) induction and analogy are ascribed to reason, in R3278 (XVI:755 f. (1773–1777)) to the power of judgement. Concerning R3200, the latter is Kant's stable position.

⁵³⁴Cf. Kreines (2007) and Liedtke (1964, p. 138).

⁵³⁵Such inferences are discussed as "judgements of understanding" in the Jäsche Logik (1800) (JL), IX:118 f.

and inductive inferences clearly show.

Before I will consider these inferences of the RPJ in more detail. a little disclaimer must be added. I have argued in chapter 1 against epistemic readings of the KU, yet at this very point it might seem like the RPJ is mainly an epistemic instrument. If that were the case, we would not be discussing an apparatus particularly relevant to transcendental philosophy: Kant warns us many times to treat these empirical inferences with care due to the contingency of the outcome. In contrast, transcendental philosophy is strictly focussed on the necessary contribution of our mind to our relation to objects.⁵³⁶ Yet as I will argue below, these kind of judgements are relevant in the current discussion because they operate as illustrations of the application of the principle of purposiveness without a purpose. This move is in agreement with the overall line of argument I aim to develop and defend, namely that we are dealing with a work of transcendental philosophy, presenting a faculty of the mind with its own a priori principle.

Overlap of Reason's and RPJ's Tasks

In chapter 6 I have primarily focussed on the outcome of the task of reason and of the RPJ, yet I have explicitly *not* discussed the task of both faculties. Kant's repeated distinction between reason and the RPJ has not stopped interpreters from emphasising the similarities of their inferential activities (cf. note 509 on page 240 for references). They do so, one might add, not without reason, as the *hypothetical use of reason* seems to aim at general hypothetical explanations for particular events – a task formerly ascribed to the RPJ.⁵³⁷ This seems, prima facie, very similar to the inductive inference, as many instances are considered in a

⁵³⁶Cf. "The mentioned [gedachten] inferences of the power of judgement are useful and indispensable for the sake of the extending of our cognition by experience. But since they give only empirical certainty, we must make use of them with caution and care." (IX:133, cf. R3276, XVI:755 (1770–79))
⁵³⁷Cf. "[T]he universal is assumed only problematically, and it is a mere idea, the particular being certain while the universality of the rule for this consequent is still a problem; then several particular cases, which are all certain, are tested by the rule, to see if they flow from it [...]. This I will call the 'hypothetical' use of reason." (A646 f./B674 f.)

certain respect and thus the inquiry proceeds from the bottom upwards. Such an interpretation makes the activity of the RPJ redundant, evoking the highly problematic overlap of hypothetical reason and the RPJ.

Before arguing why both activities are different from the point of view I take, I would like to present examples for each kind of inference. To begin with, here is an example of a *hypothetical inference*⁵³⁸ by reason in concert with the above description:

Suppose that all celestial bodies move in ellipses
The moon moves in ellipses
The Earth moves in ellipses
Mars moves in ellipses
... Likely, all celestial bodies move in ellipses

Inferring *inductively*, the RPJ proceeds from various instances of a kind, sharing at least one feature, to a rule about that kind. Unlike a hypothetical inference, an inductive inference does not contain a hypothetical general rule. What is true of many instances of a specie is also true of that species' further instances.⁵³⁹ Such an

specie is also true of that species' further instances. Such an inference contributes to the set of relevant instances of a species. Here is an example of an inductive inference ascribed to the RPJ:

The moon moves according to spherical movements The Earth moves according to spherical movements Mars moves according to spherical movements

 \therefore Likely, all celestial bodies move according to spherical movements

The RPJ proceeds analogically if it infers from various features and determinations of a certain kind to all other features and determinations, insofar as the latter are derived from one principle. Thus, an analogical inference allows us to discover shared features in the light of a common genus⁵⁴⁰, thereby bringing different things under a common principle.⁵⁴¹ This is how an analogical inference contributes to the set of features ascribed to a specie

⁵³⁸Cf. A646/B674. This example is inspired by Kepler's first law of planetary motion, which also served in our discussion of reason's contribution to cognition, cf. page 220 f.

⁵³⁹Cf. R3277, XVI:755 (1775–9).

⁵⁴⁰Cf. R3294, XVI:761 (1790–1804).

⁵⁴¹Cf. R3285, XVI:758 (1776–89).

whereas induction contributes to the set of instances ascribed to a specie. Here is an example of an analogical inference by the RPJ:

Fungi and plants have cell walls Plants reproduce by seeds \therefore Likely, in analogy with plants, fungi also reproduce by seeds 542

Having exemplified and described their activities, we can return to the comparison of the tasks of the RPJ and reason. At this stage we can see clearly that they agree in regard of the modal status of the outcome, being probable and falsifiable rather than necessary. But inferences by reason and the RPJ are different in regard of the direction and the presupposition at work. In the case of reason we can only parse the particulars when we begin with a general rule, the major. He have examples of analogical and inductive inferences show; instead, the principle of purposiveness guides the inferential activity. Hence, whereas reason collects particular cases to subsume these under a given general rule, RPJ

We should note that this particular form differs from Aristotle's account of analogy. Aristotle only allows a proportional analogy between two different domains of being (Metaphysik V6, 1016b31–35). But elsewhere Kant positively mentions this Aristotelian relational account, e. g. IV:257 as well as in the symbolic hypotyposis [Darstellung, presentation] discussed in §59 of the KU (cf. V:351–3). In respect of symbolic presentations, the RPJ operates analogically insofar as it reflects the rule rather than the content of reflection. There is, for instance, no obvious similarity between a despotic state and a handmill, but the rule applied to reflect on the causal mechanism is the same, therefore the handmill can, among other things, represent a despotic state. This belongs to reflection since, as we will see, reflection entails the consideration of which rule or criterion must be applied to select features. In both cases the result is arrived at indirectly in comparison with another rule.

 $^{^{542}{\}rm This}$ example is inspired by R3294, XVI:761 (1790–1804), cf. IX:132 f. The general form of an analogy is:

Y has features x_1, x_2

Z has features x_1, x_2, x_3

 $[\]therefore$ Likely, in analogy with Z, Y has features x_1, x_2, x_3

⁵⁴³See Chignell (2006, pp. 408–10) for an interesting discussion of the modality of the outcome of analogical reasoning.

⁵⁴⁴Cf. "because we can infer from the universal to the particular only on the ground of the universal properties of things under which the particular properties stand." (A652/B680).

 $^{^{545}\}mathrm{Cf.}$ V:385, cited on page 253.

is in the business of seeking a general rule to a particular given case. This lines up with the characterisation by Pippin (2018, p. 194) as "some sort of creativity", because the activity is not rule-guided.

While reason starts the consideration with a hypothetical judgement, intending to bring as many cases as possible under it, the RPJ is searching for such a general judgement. Moreover, in the first case the principle of homogeneity directs the activity⁵⁴⁶, in the latter cases the principle of purposiveness is at work as we intend to find an appropriate concept or a rule.⁵⁴⁷ Under the presupposition that nature answers to the constitution of our mind, we are able to search for general representations without a formulated hypothesis. In contrast, reason starts with a hypothesis and subsumes individual cases under it. Hypothetical reasoning would not be an activity of reason if it did not proceed from a major premise to a conclusion while the RPJ goes – per definitionem – in the opposite direction, as we learned in R3200 (cited on page 255). As a final distinction, we saw in chapter 6 that reason is not concerned with objects, like the understanding and the RPJ, but rather with the "unity of understanding's rules under principles" (A302/B359).⁵⁴⁸

⁵⁴⁶Cf. A647/B675.

⁵⁴⁷Cf. "In our power of judgement we perceive purposiveness insofar as it merely reflects upon a given object, whether in order to bring the empirical intuition of that object under some concept (it is indeterminate which), or in order to bring the laws which the concept of experience itself contains under common principles." (XX:220)

⁵⁴⁸Taking a historical route, Liedtke (1964) points out a further distinction, namely the immediacy of the inferences by RPJ and the mediacy of reason: While reason discloses clear relations, the lower faculties ('inferior facultas', Baumgarten (2011, §640)) cognise relations in a more confused way. Among these lower faculties Baumgarten lists the facultus diiudicandi, the faculty of judgement (cf. XX:211). Most interestingly, Baumgarten states that the lower faculties represent the relations similarly to reason and therefore are "analogon rationis" (ibid., §640).

Yet I have not seen any hints that Kant adopts this distinction in the KU, mostly, I would argue, because it presupposes that both reason and the lower faculties – including the RPJ – arrive at the same kind of conclusions. This is not the case. Even though the RPJ immediately arrives at aesthetic judgements (cf. 2.2.2), we must point out that reason cannot arrive at aesthetic judgements within a Kantian account, because in the absence of aesthetic norms we cannot argue about beauty (cf. the discussion of the antinomy of taste, 2.2.4). Note that this is one of the

Thus, what I would like to keep in mind as a lesson from this comparison is that the analogical and inductive activity of the RPJ is guided by the principle of purposiveness. Without laying so much stress on this transcendental principle, it would indeed be rather difficult to explain why this faculty gains such a central role in Kant's theory. In order to support this belief I would like to offer more instances of reflection, showing how the principle of purposiveness guides that process in each case. I will start the following section with the genuinely logical activity Kant refers to in the EEKU. Subsequently, I will argue why the principle of purposiveness must regulate such an activity.

7.3 Threefold Logical Act

Without the acts of comparing, reflecting and leaving out differences it would not be possible to arrive at empirical concepts. Kant distances himself from an account according to which a concept is received or "read off"⁵⁴⁹ just by perceiving the object. As Pippin (1979, p. 11) aptly notes, that would conflict with Kant's account of a spontaneous intellectual activity involving synthesis by the understanding; cognising for Kant is always an activity rather than a passive reception, as was already stipulated in chapter 4, mostly in 4.4. In the following citation this activity is *supposedly* ascribed to general logic:

"On first glance, this principle [of purposiveness, T.M] does not look at all like a synthetic and transcendental proposition, but *seems* rather to be tautological and to belong to mere logic. For the latter teaches [i] how one can compare a given representation with others, and, [ii] by extracting what it has in common with others, as a characteristic [Merkmal] for general use, [iii] form a

reasons why Liedtke, in contrast to my position, assumes an overlap between the activity of both faculties.

⁵⁴⁹Pippin (1982, p. 114), cf. Geiger (2003, p. 288). While making a similar point as Pippin and Geiger, Allison (2004, p. 80) notes that "[s]imply having a set of sensible impressions that are associated with one another is not the same as having a concept, since the latter requires the thought of the applicability of these impressions to a set of possible objects." In contrast, Schlösser (2013, 191 f.) suggests that on a Kantian account association in combination with logical laws is sufficient to acquire concepts.

concept [sich einen Begrif machen könne]." (XX:211 n., enumeration and emphasis mine, cf. IX:94, 591 f.)

The Latin numbers in the preceding quote refer to three succeeding steps: [i] comparing the features of two or more representations, [ii] reflecting on the relevant common features (ground of cognition) and [iii] leaving out further non-relevant features in order to arrive at a concept. 550 This quote is particularly helpful in the current context, because it allows us to identify the reflecting activity discussed in the KU with the threefold logical act we find in the various students' transcripts of the Lectures on Logic held by Kant throughout his long career as well as in his own notes in Meier's Vernunftlehre. 551

While descriptions of reflection are rarely found in the KU, this identification would allow us to gain a deeper insight into Kant's account of reflection. What Kant refers to above is, on my reading, the activity described in one of those notes:

"(1. attention: relation to consciousness.) Logical origin of concepts:

1. through comparison: how in a consciousness how they [representations, T. M.] relate to one another in a consciousness.

(Comparison among each other)

- 2. through reflection (with the same consciousness): how they relate to one another in a consciousness as identical or not how various [representations, T. M.] can be conceived [begriffen] in a consciousness.
- (whether one can have a concept without comparison with others and before this and yet as repraesentationem communem?)
- 3. through abstraction: by because one leaves out what distinguishes them." (R2876, XVI:555

⁵⁵⁰Similarly, the three steps appear in condensed form elsewhere in the EEKU: "To reflect (to consider [Überlegen]), however, is [i] to compare and [ii] to hold together given representations either with others or with one's faculty of cognition, [iii] in relation to a concept thereby made possible." (XX:211, enumeration mine)

⁵⁵¹Cf. e. g. R2854, XVI:547 (1772?); R2865, XVI:552 (1770–71?); R2875–8, XVI:554–557 (1776–8); R3053, XVI:633 (1780 ff.); XXIV:909, XXIV:161, 641.

(1776–8), translation mine)⁵⁵²

Comparing the two presented descriptions of the activities we should firstly mention two distinctions between the EEKU-account and Reflection 2876. First of all, it seems that the second and third step of the Reflection are merged in the second step of the KU-account: the reflection on the common feature(s), the ground of cognition, and the moment of leaving out the other features belong to the same step. Additionally, a third step is added in the EEKU-citation, namely the generation of a concept. As the direction and the outcome of the activity do not change due to this additional step⁵⁵³, I do not see a reason to give a lot of weight to this objection: while the three steps in the Reflection together describe the "logical source of concepts" (R2876, XVI:555), the third step in the citation from the EEKU concerns the generation of a concept.

A second distinction concerns the scope of 'reflection': in the KU the term refers to the full threefold activity, as becomes most explicit in XX:211 (cited in note 550 on page 263), while it merely refers to the middle step in the second case. However, the difference is once more not as important as might appear. Since the primary moment in the activity is reflection, this does not change the situation in some fundamental way. 554 Kant remarks, for instance, that comparison and abstraction do not produce [hervorbringen] concepts, only reflection does. 555 At more than one point Kant mentions that comparison alone does not suffice to arrive at concepts 556 : it is impossible to progress from plain comparison to a concept without reflecting, since an additional selection process must be involved in order to determine the relevant features. 557 Similarly, abstraction alone would be insuffi-

⁵⁵²Cf. R2854, XVI:547 (origin unknown), IX:94, VII:138; XX:211 n., XXIV:909. This threefold act has various historical precedents in German 17th-century rationalism (cf. Liedtke 1964, pp. 33–108), yet such a comparison risks disregarding the particular critical elements of Kant's account of reflection.

⁵⁵³ This is also mentioned explicitly in the introduction to the JL, cf. IX:94. According to Allison (2001, p. 27) the full activity is directed from the first moment "toward the acquisition of concepts applicable in judgements."

⁵⁵⁴Cf. Longuenesse 1998, p. 121.

⁵⁵⁵Cf. R2865, XVI:552 (1770–1771?).

⁵⁵⁶E. g. XX:213; R2975, XVI:554 f. (1776–8).

⁵⁵⁷Cf. "Bei jedem conceptus communis müssen zwar vergleichungen angestellt

cient without reflecting, since there are no selected features to leave out: abstraction is nothing more than a "negative condition" (IX:95).⁵⁵⁸ However, it would be more precise to distinguish the three moments as I aim to do in the following.

Is Reflection Concept Acquisition?

Having given reasons why we want to treat these two citations as referring to the same activity of concept generation, we face a tougher question, namely how to interpret this reflecting activity. The primary responses among interpreters point either towards concept acquisition or explication of pre-conscious rules of synthesis. Although I do believe these views to be sound, I believe that the applications of reflection are not restricted to these interpretations. During my discussion of both interpretations I will add a further suggestion in engagement with a further example in which reflection is considered to be a multi-levelled process of selecting common features, including reflection on the methods, criteria and means.

It is commonly thought that this threefold logical act is concerned with *concept acquisition*. According to that view, the process follows the following steps:

- 1. the singular objects of intuition are compared in order to become aware of the different features,
- 2. the qualitative congruent elements are determined,
- 3. the qualitative differing elements are left out such that we acquire the capacity to determine the object of experience

werden, sonst wäre er nicht conceptus communis; aber er darf doch nicht allererst aus diesen Verglichenen Vorstellungen gebildet werden." (R2975, XVI:554 f. (1752))

⁵⁵⁸Cf. "Durch abstraction werden keine Begriffe, sondern durch reflection: entweder, wenn der Begriff gegeben ist, nur die Form oder durch reflex und heißt reflectirter, oder selbst der Begriff: reflectirender. Die comparation und abstraction bringt keine Begriffe hervor, sondern nur die logische form derselben." (R2865, XVI:552 (1769–71?), cf. R2875, XVI:554 (1776–8))

 ⁵⁵⁹ Cf. Schlösser (2013), Zuckert (2007, 32 f.), Grüne (2009), Roedl (2001),
 Allison (2004), A. Newton (2012), Guyer (2005, 32 f.), Horstmann (1989,
 p. 170). The formulation of the three steps has been inspired by Grüne (2009, p. 101).

as an instance of a concept x.

Following this interpretation, the threefold act elaborates how we, for instance, "acquire [bekommen] the concept of a tree" (IX:95), namely by comparing and reflecting on different representations and, finally, by leaving out the differences among those objects. Thus a conscious experience of a particular set of similar objects will lead to an insight into the features belonging to the general concept these objects fall under such that we acquire the disposition to handle that concept.

This account of reflection is usually elaborated with reference to the famous example offered in Jäsche's notes. 560 Suppose that we are confronted with single instances of three kinds of trees, namely a spruce, a willow and a linden. Instantly, our mind starts to compare the representations of those trees and will notice differences concerning the leaves, trunks, branches, height, form, etc. In second instance, reflection seeks shared features among the three objects and will notice that they all have trunks, branches and leaves, regardless of the specific differences these features have, such that they do not appear as mere differences but as variations of a genuine structural possibility.

Thus, that the spruce's leaves are needle shaped, the willow's leaves elongated and the linden's leaves heart-shaped is not relevant for the moment of leaving out these differences. 'Tree' is the closest generic term: Since the three kinds belong to different families there would not be a more appropriate term. For instance, if they all had needle-shaped leaves, like the spruce has, 'conifer'

⁵⁶⁰ Cf. IX:94 f. We must add that this example is slightly problematic, since there is no corresponding passage in Kant's notes. I have found the same example, yet much less elaborated, in the Wiener Logik (transcription probably from 1794–1796) (V-Lo/Wiener) (cf. XXIV:907). This example might thus have been part of Kant's lectures that were also attended and used by Jäsche. There are reasons to treat Jäsche's manual with care though, foremost because Kant did not authorise this work, furthermore because Jäsche mixed up pre-critical (i. e. idealist) and critical remarks (cf. Kant 1992, pp. xvii–xix). A way to deal with this problem is to verify all statements by referring to the main source of this work. This is Kant's annotated exemplar of Meier's Vernunftlehre made available in volume XVI of the AA. Unfortunately, this is not possible in the current case, since there is no corresponding passage. For further critique of Jäsche's treatment of the threefold act, cf. Liedtke (1966, 114 f.) and Liedtke (1964, 148 n.).

might have been a more appropriate generic term. Regarding the set of trees in front us, this activity will result in the generic concept of a 'tree'. As a result, the subject has acquired the ability to use the concept 'tree'.

Although Jäsche's botanic example clearly presents the three steps. I am worried that the presentation is too narrow, since the moment of reflection is restricted to the search for common features. Such an activity could easily be ascribed to comparison, since an insight into differences (e. g. feature p is not feature q) presupposes an insight into identities (e. g. feature p is identical to feature p) and the other way around, meaning that they both depend on the same logical principle. On my account, the moment of reflection additionally involves the selection of criteria and methods, which is true just as much for Jäsche's example as for the following. The relevant features are not simply available in nature, but are the result of a spontaneous process of synthesis and consideration. Allow me to develop this account in considering a similar example of the three-fold logical act, leading to what I consider to be a richer and more elaborate account of reflection.

Towards a Richer Account of Reflection

In the *Bestimmung*, Kant argues why a Linnaeus-style *Naturbeschreibung*, i. e. a sheer comparison of random coordinated features, is not sufficient to give a full account of the human race (cf. 6.3). Instead, a *Naturgeschichte*, a natural history, traces back the origin of the initial set of species, for instance by examining the DNA, leading to a taxonomy of subordinated 'species' (or 'races', to use Kant's terminology). ⁵⁶¹ Such an account does not stop at a sheer comparison of the external features, but additionally reflects on the subordination relations *between* the classified species in order to find their common cause (in this case consanguinity) and, in a final step, leaves out the distinctions. ⁵⁶² Hence,

⁵⁶¹See Dawkins and Wong (2016) for an example of such an inquiry.

⁵⁶²Cf. "And here one sees clearly that on must be guided by a determinate principle merely in order to *observe*, i. e. to pay attention to that which could indicate the phyletic origin [*Abstammung*], not just the resemblance of characters, since in that case we are dealing with a problem of natural

in Kant's view, a proper biological taxonomy does not simply collect and orders species with similar coordinated features, like *Naturbeschreibung*, but rather portrays the *causal-historical origin(s)*. In such a demanding case, the moment of reflection is a much more elaborated process of selecting relevant features. A process like that is described in the following passage from the *Bestimmung*. I am quoting the passage extensively, because I think it contains the key towards a richer account of reflection:

"Initially, when looking only for characters of comparison (in terms of similarity or dissimilarity) one obtains classes of creatures under a species. If one looks further to their phyletic origin [Abstammung], then it must become apparent whether those classes are so many different kinds or only races. The wolf, the fox, the jackal, the hyena and the house dog are so many classes of four-footed animals. If one assumes that each of them required a special phyletic origin, then they are so many kinds. However, if one concedes that they also could have originated from one phylum, then they are only races of the latter. In natural history (which is concerned only with generation and phyletic origination) kind and species are not distinguished as such. This distinction occurs solely in the description of nature, in which only the comparison of marks matters. What is here called kind, is often only called *race* there." (VIII:100 n., emphases mine)

In this extensive citation, Kant refers to comparison as a process of mapping the similarities and dissimilarities, leading to classes of creatures, each with its own origin. In Linnaeus' taxonomy, to which Kant implicitly refers, the genus does not just contain the wolf, the fox, the hyena and the dog under a wider genus, but, additionally, the genus "four-legged animals" (quadrupedia) and its subgenus "wild", contains further species such as the tiger, the lion, the cat and the bear (see figure 7.2). Yet such a genus is not sufficient for a natural-historical account which demands identifying the origin, Stamm, to relate this to the species. ⁵⁶³ One might think here of the 'dog family' [canidae],

history, not of the description of nature and of mere methodological nomenclature." (VIII:164)

⁵⁶³In defence of Linnaeus it is fair to say that he grouped the *quadrupedia* further into the order of wild animals [ferae] (see figure 7.2), but this

Table 7.2: Simplified selection of Linnaeus (1735) taxonomy of the Animal Kingdom, lining up members of the 'dog family' (hyena, fox, etc.) with other four-footed wild animals like bears, tigers, etc. It exemplifies a natural description, a *Naturbeschreibung*, and does not aim to represent Linnaeus' order fully and adequately.

Quadrupedia Corpus hirsutum Pedes quatuor Femina viviparae lactiferae

corpus initiation i cues quarter i comme viriparae incorrer								
ANTHROPOMORPHA	Homo		Europaeus albesc. Americanus rubesc.					
	Simia		Atlanticus fuscus Africanus nigr. Simia cauda carens Papio. Satyrus Cercopithecus					
	Bradypus		Cynocephalus					
	Dradypus	• • •						
FERAE	Ursus		Ursus Coati <i>Mrg</i> Wickhead <i>Angl</i> .					
	Leo		Leo					
		• • • •	Tigris					
	Tigris	• • • •	~					
			Panthera					
	Felis		Felis					
			Catus					
			Lynx					
	Phoca		Canis marinus					
	Hyena		Hyena Vater					
			Vivam Londini muser vidii					
			& descriptia Arted					
	Canis		Canis					
			Lupus					
		Squillachi						
			Vulpes					
	l							

for example. If such an origin has been established, the species are named *races* to point out the dependence on their common origin, according to Kant's theory. Even though this process is not referred to as reflection, it is in a very considered way a search for a criterion to relate the various concepts (in this case, classes of mammals).

Kant's suggestion to introduce this conceptual invention ('dog family') is in my opinion a perfect example of *concept acquisition*. More importantly, the example makes it clear that this process should not at all be obvious and straight-forward: reflection is more than a mere mapping of the common features. Furthermore, it is not just a reaction to a set of intuitions, but grows out of a theoretical need depending on a certain approach. The taxonomist confronted with this manifold of mammals might not only consider which features are similar, but also which criteria in the selection and ordering of the features are relevant to finding common ancestors. Such thoughts entail considerations on the correct method and the constraints such a method brings. Depending on the selected criteria, other criteria are left out, influencing the resulting concept. We could ask ourselves whether it is appropriate to apply induction or analogy, to unify or to multiply our concepts. Also, we might introduce criteria to generate certain clusters of features and distinguish them from others. We might include methodological considerations up to point where a full paradigm shift is needed to incorporate actors like the 'microbe' (Pasteur). 564 Thus, reflection is not only a reflection on the sensual material, but also on the art of ordering, selecting, considering, etc. itself.

Providing a further example of reflection, Kant adopts in the KU Cicero's example of the person lost in uninhabited land who perceives a regular hexagon drawn in the sand. The process of reflection is in this case presented as the becoming aware

does not answer Kant's quest for a causal origin. The famous Celestial Emporium of Benevolent Knowledge, dividing the set of animals in "(a) those belonging to the Emperor, (b) those that are embalmed, (c) those that are tame, (d) pigs, (e) sirens, (f) imaginary animals, (g) wild dogs, (h) those included in this classification, [...] (n) those which, from a distance, look like flies" (Borges (1964, 103 f.)) stresses Kant's point to the absurd.

⁵⁶⁴Latour (Cf. 2017, pp. 88–90).

[innewerden] of its "unity of the principle of generation" (V:370). Going through the various options, e. g. the winds, animals or the nearby sea, she must exclude all options lacking reason, since it surely is too much of a coincidence that the shape agrees with the concept of a regular hexagon. According to the result of the process of reflection, it can only be a product of art, prompting her to comfort herself (in a determining fashion, as Kant would be eager to stress) by saying: "Be of good courage; I see the tracks of men." The parallel to be drawn is that reflection, again, is the search for the cause and involves the generation of a method and a criterion to arrive at the correct cause.

To bring up yet another distinction: This aspect of reflection is concerned with the question of *how* rather than with the question of *that*, because it is concerned less with facts or features than the methods, principles and other structures of our cognition. Indeed, the definition of reflection in the cited note allows such an interpretation insofar as Kant writes that it is the consideration of "*how* various [concepts, T. M.] can be parsed within one awareness" (R2876, XVI:555, emphasis mine). Similarly, reflection is considered to be the kind of activity of reflecting about ways to arrive at cognition, as R3200 tells us. ⁵⁶⁶

Moreover, it agrees with the account developed in chapter 2 in interaction with the account of judgements of taste. There we stated that reflective judgements are the outcome of a reflection on the object without being followed by determination by default. Finally, I must add for the record that this is not the only exclusive

⁵⁶⁵Cf. V:370, Cicero (1928, pp. I.XVII.28–30).

⁵⁶⁶ Cited on page 255. Something similar is stated in the JL: "Inferences of the power of judgement are certain modes of inference for coming from particular concepts to universal ones. They are not functions of the determinative power of judgement, then, but rather of the reflective; hence they also do not determine the object, but only the mode of reflection concerning it, in order to attain its cognition." (IX:132) Moreover, in the Anth reflection is characterised as follows: "Consciousness of activity in combining the manifold of ideas according to a rule of the unity of the manifold; that is, it requires concepts and thought in general" (VII:141, emphasis mine). This must nevertheless be distinguished from transcendental reflection, which will be discussed below in 7.4. In the reflections on anthropology the term 'reflection' is also used to denote the awareness of a current psychological state, e. g. R1515, XV:851 (1780's); R610, XV:261 (1780's).

interpretation of reflection, but it is an account that has textual support and advocates among scholars of Kant's legacy. ⁵⁶⁷

Answering Accusations

I will finally try to elaborate on this account in response to a repeated accusation. The threefold logical act has been considered "hopelessly circular" by various authors. Here is the argument: if we are seeking the genus of three objects in focus—say a spruce, a willow and a linden—we need a concept to direct our reflection and be aware which features have to be picked out in the sensible manifold. Otherwise it could have been anything that counts as a feature. It is hard to see how one would be able to discern these elements without having the slightest notion of these features and, furthermore, concentrate on exactly these instead of other features. Confronted with Jäsche's scenery we might as well compare branches, the amount of insect species living in the tree or patches of greenness instead of three instances of different tree species. Thus the result of the logical act must already be

⁵⁶⁷Among the interpreters of Kant, Henrich (1989, p. 42) comes closest to such a view. According to him, reflection is the knowledge of the "principles upon which an activity is founded [...] by contrast with other activities. Reflection consists in precisely this knowledge. Without it we would, for example, confuse counting with calculating, analysis with composition, and so forth." In Zuckert (2007, 352, cf. 51) I have found a few indications that she shares this richer notion of reflection: e. g. "For reflective judging is an activity of choosing which (contingent, heterogeneous) properties to coordinate, in order to construct concepts." Coming from a systematic perspective, Burge (2003, p. 542) also suggests such an approach to parse Kant's account of reflection: "the way to come to understand relevant rules through reflection is not conceptual analysis, but consideration of the inferential and applicational (judgement) capacities marked by the concept, and its relations to sensible intuitions." Although there are hints that Pippin (1982, 112-9, mainly 113) embraces such a view, he admits in the concluding section that he is confused on the issue, not in the least because of Kant's own ambivalence. Roedl (2001) agrees with such a position insofar as the analysis takes place within the logical space of reasons, but his inferentialist interpretation does not comply with the activity of the understanding (but rather with that of reason) and cannot do justice to the fact that this logical act describes the search for a common ground.

⁵⁶⁸Allison (2001, p. 22), emphasis mine.

⁵⁶⁹See also Ginsborg (1997, p. 53), Ginsborg (2006, p. 39), Pippin (1982, pp. 112-4).

prepared, according to this line of thought, otherwise we would not be comparing trees. Thus, it is a *petitio principii*.

As far as I am concerned, this interpretation by Allison seems mistaken, since this act is not supposed to explain how we can generate concepts from scratch, as an empiricist might assume ⁵⁷⁰, but rather how we arrive at general concepts within the space of reason. In the previous case, concerning the novel term 'dog family', an insufficient taxonomy forces to make up a further category for dog-like creatures in agreement with the constraints of a natural historical methodology.⁵⁷¹ Thus within an available conceptual system, a certain generic term or law or rule is born out of a need to react appropriately to certain objects of experience. The presupposition of nature's responsiveness to our discursive faculty, i. e. the principle of purposiveness, plays a guiding role during this activity. Without this presupposition, the threefold act would not be directed at arriving at a conceptual form and, in consequence, we would not be prepared to find an appropriate concept.⁵⁷² This is not meant to deny that some initial rule must be available in order to select the set of objects, since we need some cognitive principle in advance, yet I do not agree with Allison that this rule must be identical to the resulting concept. This is how the circularity dissolves on my reading.

In contrast, scholars who address the problem of circularity often respond by dismissing the view that the threefold act is primarily

⁵⁷⁰At least the direction agrees with Locke's threefold sequence, moving from the comparison of simple ideas to the composition of these into complex ideas and, finally, to the abstraction of the particulars to give these complex ideas names (Cf. Locke 1991, book II, Chapter XI, §§4, 6, 9). One of the reasons I am treating such an interpretation sceptically is because of the looming amphiboly discussed previously in 4.5. According to Longuenesse (1998, p. 119) the empiricists deploy a nominalist account of concepts, meaning that they are only a means for the understanding to determine objects. Thus, at the end of the day, there is no qualitative difference between intuitions and concepts, and the amphiboly described by Kant becomes a real threat in such an account of concept acquisition. In contrast, for Kant, the general form of discursive representations is more than a sum of individual representations. Only mediately, through features, does the concept relate to objects. This is not the particular form of representations made and used by the intellectual faculty (cf. ibid., p. 120).

⁵⁷¹This natural historical methodology has been discussed in 6.3.

⁵⁷²Cf. XX:215 f.

concerned with the way we acquire concepts. Instead, they suggest that the threefold act is primarily concerned with making explicit pre-conscious rules of synthesis, the schemata. This position thinks of schema as a rule for synthesis of sense impressions, which like intermediate representations is responsible for bridging the fundamental distinction between intuitions and concepts. 573 Thus through association we acquire a certain representation, by way of comparing, reflecting and abstracting we are also able to explicate such a pre-conceptual schema. For instance, one might, according to this view, distinguish three kinds of trees "without also having the capacity to list the defining marks of the distinct species." 574

Among others, such a position is defended by Ginsborg (1997, p. 57). According to her so-called 'hybrid model' we can note a feature without having the capacity to apply the concept that denotes that specific feature. She distinguishes between schema (unconscious) and concept (conscious); it is not before we reflect on the schemata in use that we become aware of the rule we are following. In a later text, Ginsborg (2006, p. 40) even states that we do not explicate schemata, but "concepts we already possess", namely inborn representations, thereby evoking the circle she was trying to avoid. Yet this slip of the pen does not invalidate the overall approach, which seems a fruitful way to talk about this reflective activity, as it explicates to which initial state the threefold logical act is responding.

However, I believe that reflection is taken by Ginsborg (1997) in a way that is too narrow and straight-forward. It does not merely concern the selection of features to allow classification, but also includes reflection on the method, means and selection criteria. This is the account I would like to propose. Having said that, it is not just a matter of becoming aware of preconscious schemata, but it could, on my richer account, additionally involve further complex discursive activities. Following Henrich's dictum that the applications of reflection are many, we distinguish many kinds of

⁵⁷³Cf. "what one is really comparing are the patterns or rules governing the apprehension of the items, that is, their schemata" (Allison 2001, p. 25). See also Longuenesse (1998, 116 n., 120 n., 153), Zuckert (2007, 351 n.) and Ginsborg (1997).

⁵⁷⁴Allison 2001, p. 26.

reflective operations, and do not exclude one for the other.

7.4 Principle of Purposiveness and Reflection

The current chapter seeks to give an overview of various accounts of reflection, all of which are guided by the principle of purposiveness. We saw in chapter 5 how this transcendental principle states that nature is responsive to the particular character of our sense-dependent discursive mind. Above we saw how reflection in the KU is quickly and sparsely characterised as the search for general representations, namely rules of various degrees of generality (laws, principles, concepts) to determine objects. To explore this characterisation in more detail, we directed our attention in 7.3 towards the threefold logical act in the Lectures on Logic, allowing us to see how reflection is much more than a sheer comparison of features. It involves considerations on the methods, means and selection criteria. That activity is possible, because the principle implicitly directs us towards general representations, ensuring the unity of experience, as was argued for in 5.3.

Following Kant's repeatedly stated aim to inquire in the KU into how the a priori principle of purposiveness, also referred to as the "principle of reflection" (V:385), guides the RPJ⁵⁷⁵, I prefer to relate all of the accounts of reflection in the KU to this principle. Unlike piecemeal readings, stressing a variety of unrelated accounts of reflection, I believe that all of these various kinds of reflection share the guidance by its own principle while they exclude other accounts of reflection we find elsewhere in the Kantian work. I call this my *criterion* to distinguish reflection by the RPJ from other accounts of reflection.

In some passages, reflection refers to the whole of conscious intellectual activity ("I think"), standing in opposition to perception. ⁵⁷⁶ As far as I can see, the principle of purposiveness is not relevant for this activity, which supports the exclusive character

⁵⁷⁵Cf. e. g. V:168 and 1.3.

⁵⁷⁶Cf. IV:288, VII:134, 141 f., 174 n., XV:165 f., XXIV:424, XXVIII:239 f., XXVIII:241, 311, Henrich (1989, pp. 44–6) and Korsgaard (1996).

of my criterion. Less obvious is the situation for the account of transcendental reflection which, at first sight, seems closely related to the three-fold logical act; apart from the apparent terminological correspondence, it provides a main step in the application of concepts. Zammito (1992, p. 88) even considers it to be the "seal of the argument" for the KU's account of reflection. I would like to challenge such a treatment in light of the previously formulated criterion: the principle of purposiveness does not play any role for the deployment of transcendental reflection. ⁵⁷⁷ Thus, I consider the following discussion to be a test case for the effectiveness of my criterion rather than an insightful contribution to the discussion of this difficult and controversial chapter in the KrV. 578 Additionally, it saves the third Critique once more from an overlap with the KrV, even though this particular complaint within this context has not yet been raised in the literature to my knowledge.

Transcendental Reflection

The chapter on the Amphiboly begins with a general description of transcendental reflection:

"Reflection [Überlegung] (reflexio) does not have to do with objects themselves, in order to acquire concepts directly from them, but is rather the state of mind in which we first prepare ourselves to find out the subjective conditions under which we can arrive at concepts." (A260/B316)

Even by Kantian standards this seems an excessively complicated and verbose formulation at first sight, yet the complications dissolve once we unpack the citation. Firstly, Kant is denying that reflection is identical to the act of passively receiving concepts from objects. Even though he does not give reasons for that statement, I assume such an empirical account of concept formation conflicts with Kant's account of the spontaneity of

 $^{^{577}\}mathrm{D\ddot{u}sing}$ (1968, 63 n.) and Zuckert (2007, 65 n.) also stress the distinction between the KU's and Amphiboly's account of reflection, yet for reasons different than mine.

⁵⁷⁸For helpful commentary on the Amphiboly, see Longuenesse (1998, pp. 107–66) and Willaschek (1998). See 4.5 for a quick discussion of the account of the Amphiboly.

our intellect.⁵⁷⁹ Secondly, Kant delivers a positive definition of transcendental reflection, stating that reflection is taken as a mental state accompanying a subject discovering the subjective conditions under which it can arrive at concepts for objects. Arriving at concepts means finding higher concepts in order to unify given representations, regardless whether these representations are intuitions or concepts. Yet it is in our current case important not to equate reflection with arriving at concepts; rather it is the mental activity of initiating and preparing to arrive at concepts. It might look like there is a strong similarity with the KU-account, which also depicts the search for general representations rather than the result of the search.

The question to be answered at this stage is: what does Kant mean by the subjective conditions under which we can arrive at concepts? These subjective conditions are the faculties; namely, either pure understanding or sensibility. We saw before, in 4.3, that these faculties are "very different sources of representations" (A271/B327) and generate very different forms of representation. Therefore, certain distinctions on the level of intuitions cannot be made on the level of concepts. On a conceptual level it is, for instance, not possible to accept numerical distinctions between individual instances of that concept or to distinguish between form and matter.

To avoid a confusion of the pure concept of the understanding with an intuition (amphiboly), it is important to locate the representations in their "transcendental place" (A260/B324), i. e. the responsible faculty.⁵⁸⁰ If we do not identify the "kind of cognition [Erkenntnisart]" (A262/B318), we might raise false expectations of intuitions, like Kant's main opponents in this chapter, namely the rationalists, who operate merely with logical concepts, thereby overseeing differences on the level of intuitions.⁵⁸¹ So far, this

 $[\]overline{^{579}\mathrm{See}}$ note 570 on page 273 for Locke's empirical account of concept generation.

⁵⁸⁰Cf. A261/B317, A269/B325.

⁵⁸¹Cf. "[O]bjects are still compared through the grid of our discursive understanding and its concepts of comparison or rules for comparison. But the purpose of transcendental reflection is precisely to show that these rules have to acquire a different use when they are applied to objects given in space and time." (Longuenesse 2005, p. 226) See also Willaschek (1998, 345 f.) and De Boer (2010, 69 f.).

account of reflection is rather opaque; fortunately Kant presents examples of what he has in mind.

Amphiboly

Take, for instance, the distinction between identity [Einerleiheit] and difference [Verschiedenheit]. 582 Regardless of whether two different objects are instances of the same concept, we can, simply based on their different locations in space, conclude that they are different objects. Yet on the level of concepts it might be the case that they are depicted identically, since they are two instances of, say, 'apple'. In such a case it is not manifest on a conceptual level that they are logically the same but numerically different. Hence, on Kant's account, appearances are finer-grained than concepts due to the irreducible contribution of sensibility; therefore concepts cannot grasp the coordinates of the position of the individuals in the spatio-temporal order. A similar case is made in respect to the reality of agreement [Einstimmung] and opposition [Widerstreit]. 583 As above, on the level of concepts it is not possible to recognise two different phaenomena standing in opposition. This is exemplified by a subtraction such as 'six minus six'. If we think of them as ordinal numbers in pure understanding, these values would simply cancel out [aufheben, A273/B329] when we do the math. Yet if the values refer to real forces approaching each other on the same line, as physicists might study, it would be possible to acknowledge the reality of both forces standing in a certain relation to each other.⁵⁸⁴

It follows that what is identical or in agreement on a conceptual level might be different or stand in opposition on an intuitive level. Therefore, on Kant's view, the $transcendental\ reflection$ must precede any kind of 'objective' logical comparison of concepts to discover how the comparing concepts operate. Or, echoing the difference between general and transcendental logic⁵⁸⁵, transcen-

⁵⁸²Cf. A271 f./B327 f., A263 f./B319 f.

⁵⁸³Cf. A264 f./B320 f, A272–4/B329–31.

 $^{^{584}}$ The fourth distinction between form and matter has been discussed in 3.3.

 $^{^{585}\}mathrm{This}$ distinction between general and transcendental logic has been discussed in 3.3. The implicit reference to this distinction is made in A262/B318.

dental reflection considers the *content* of representations whereas the logical comparison leaves out this content, merely considering the logical relation between objects. The latter, sometimes referred to as 'logical reflection' or 'sheer comparison', inquires whether concepts are identical, do agree with each other, have intrinsic content and determine each other. Nant's account, a logical comparison can only proceed in a reliable way after a transcendental reflection has identified the conceptual level, otherwise our judgements might be inadequate and unreliable for philosophical or scientific inquiries. This is on my reading stated by the cited definition of reflection at the outset of the Amphiboly.

Like the KU-account, transcendental reflection prepares the arrival at concepts rather than being the actual result of the search. Furthermore, it seems that the stage of comparison, discussed previously as a first moment in 7.3, must draw on the paired concepts of comparison, since it is simply impossible to discover identity or differences, agreement or opposition, etc. among representations without these concepts.⁵⁸⁹ We might, for instance, want to take up the previously discussed taxonomical example and consider the relation between the following concepts: 'wild animal', 'bear' and 'wolf'. In line with the directions given by these paired concepts of comparison we can determine these concepts' relations. We will probably find out that they are not identical, do agree with each other, have inner content and that the latter two concepts depend on the first. This sheer reflection is indeed only a first step in the logical act, yet in the absence of the moment of 'proper'⁵⁹⁰ reflection I do not find an account of the logical act in the Amphiboly.

Moreover, this account of transcendental reflection echoes, in

⁵⁸⁶Cf. A626/B317.

 $^{^{587}\}mathrm{See}$ A279/B335 for these logical relations.

⁵⁸⁸Cf. A269 f./B325 f. The relevance of transcendental reflection is stressed by Zuckert (2007, 65 n.), Smit (1999, p. 203), Haag (2007, p. 109), De Boer (2010). On a somewhat weaker formulation, this reflective activity is a kind of "therapeutic diagnosis" to avoid the amphibolies, according to Bird (2006, pp. 539, 552).

⁵⁸⁹This position has been developed in Longuenesse (1998, pp. 124–28).

⁵⁹⁰The adjective 'proper' is supposed to indicate that I am not talking about transcendental reflection, which precedes rather than follows comparison.

a restricted manner, the reflection on the method, means and selection criteria, even though the 'kind of cognition' can merely be intuitive or conceptual, as we have seen. It is a prerequisite to have - transcendental - insight into the kind of cognition and its consequences for the act of comparison. In sum, while I acknowledge the contribution by transcendental reflection, I am hesitant to align it with the account of reflection we encounter in the KU. In my view, the RPJ is guided by the principle of purposiveness in our interaction with empirical nature.

Account of Reflection

In our discussion of the Deduction in chapter 5 we saw how the unity of experience is threatened by the possibly infinite amount of contingent empirical laws for us, therefore the RPJ must presuppose, for the sake of its own use, the necessary lawful unification of empirical objects, even though these objects might appear contingent to us. Moreover, in chapter 2 we saw how this principle is primarily manifested in aesthetic judgements, which are not derived from available concepts and rules, but solely depend on the "faculty for judging itself [selbst], or the power of judgement" (V:287). Therefore, the judgement is not determining, but reflective, expressing the harmonious animated play of our cognitive faculties while being entertained by the object perceived as beautiful. In that state the principle of purposiveness is presented, stating that nature has been organised by a supersensible "principle of the unity of the manifold" (V:180) such that it is responsive to the particular character of our mind.

This seems, prima facie, very different from the maxims we encounter both in the Deduction and in the KtU. Yet under the transcendental aspect I am foregrounding, it is important to make clear how they relate to emphasise the common thread in the KU. Above, in 5.2, we observed how the maxims for the inquiry into empirical nature presuppose nature having the greatest manifold of phenomena while being continuously and thoroughly unified in the great chain of being such that the understanding can perform its synthesis. How do these a priori "pronouncements of metaphysical wisdom" (V:182) arise from the principle of purposiveness, as Kant states right before the Deduction begins? The

answer is that these maxims need to be taken as expectations of nature's constellation and behaviour, responding to a 'need' of the understanding to have coherent experience (cf. chapter 5). That nature does not allow leaps is a requirement for us to find regularities in empirical nature.

If nature were to proceed stochastically, we would not be able to arrive at a ground of cognition, namely a feature to cognise the object as one of a certain kind or as an instance of a certain law. Putting it that way, it seems possible to take the maxims as manifestations of nature's responsiveness to our particular discursive faculty, which is necessary to secure the unity and continuity of our experience of nature's manifold forms.

Yet to say that the generation of some (organised) bodies can only be judged according to the causality of purposes, as the teleological maxim in the KtU states, seems $prima\ facie$ not related to the subjective principle of purposiveness reiterated above. As I have stated previously, it is worth noting that the distinction between both accounts of purposiveness is less strict than it might seem initially, as the ascription of an internal purposive causality to natural purposes is at all stages of the argument presented as a $reflective\ judgement$ (cf. 2.3.2). Why is that the case? The objective principle of purposiveness is, according to §61, an analogical way of introducing teleology into the inquiry of nature, not in order to explain, but for reasons of 'elucidation (exposition)' (V:412). 591

We are agnostic when it comes to the inner ground of the natural purpose, having "no analogy whatsoever with any causality we know of" (V:375⁵⁹²) such that the maxim we are using to elucidate the genesis and behaviour of natural purposes is not a determination, but a reflection to bring the object into focus and guide research into objects of this kind.⁵⁹³ We should recall the passage about the piece of dust which, as soon as it starts moving by itself, is no longer considered to be a piece of inert matter determined by the laws of motion, but rather organised matter, having fundamental impact on our approach to the "order of

⁵⁹¹Cf. V:360.

⁵⁹²Cf. V:374, 389.

⁵⁹³Cf. V:375.

things" (V:377).⁵⁹⁴ Therefore, the teleological approach is *not* a constitutive principle, but rather allows us to find mechanical regularities as much as possible under the presupposition of nature's purposive order (see 2.3.2 for a more extensive elaboration of the guiding role of reason's maxims).

The former point saves us from assuming a 'cliff' between both accounts of purposiveness, and, consequently, between both parts of the KU. Yet it is not enough to point out the reflective status of those judgements; we must also show how it relates to the account of purposiveness. Kant argues as follows⁵⁹⁵: the parts and the whole of a natural purpose are mutually end and means at the same time. Subsequently, he argues that this definition must depend on an a priori principle, because the necessity and generality cannot be inferred from experiential data. Thus, while we are reflecting on the functions of the parts in relation to the whole, we are following maxims like "nothing in [the natural purpose, T. M.] is in vain" and "nothing happens by chance" (V:376). These versions of the principle of sufficient reason, well known in classical metaphysics, and required for the discursive mind looking for causes, are also true on the level of natural purposes. That is how they relate to the subjective principle (cf. 2.3.2 and 5.2).

Finally, I would like to return to the kinds of reflection introduced in this chapter to explicate the dependency on the transcendental principle of the RPJ. In regard to induction and analogy we already saw in 7.2 that the principle of purposiveness must be presupposed to proceed from general to particular representations. Both inductive and analogical reasoning presuppose, instead of a hypothesis and for the sake of reflection, that nature is responsive to the conceptual form we are searching for. R3200 explicitly states that the inferences by the RPJ are *indirect* because of their dependence on the principle of purposiveness.

For the threefold logical act, discussed in 7.3, such an explicit statement on the relation between the act and the principle is not available. Yet immediately after the presentation of the threefold act in the EEKU (cf. page 262) the principle of purposiveness

⁵⁹⁴This example from the $MetL_1$ was presented on page 86.

⁵⁹⁵I am referring to §66 of the third *Critique*.

283

is described as a "condition of the possibility of the application of logic to nature" (XX:212 n.). Here logic refers back to the threefold logical act. This statement, as Kant adds in the same instructive footnote, is required to bring "all appearing natural forms [vorkommende Naturformen] to concepts (of greater or lesser generality)" (XX:212 n., translation edited). We might formulate this slightly differently by saying that the goal of the activity, namely the search for empirical concepts, rules or laws, can only be realised if its possibility is presupposed; it is impossible to search for concepts if we do not presuppose the possibility of success of the activity. ⁵⁹⁶

Moreover, our reflection would become "arbitrary and blind" (XX:212) if we did not presuppose nature's purposiveness. If we search for the genus of three species of trees or for the common causal-historical origin of a certain set of classes of four-legged wild animals, we are inquiring in a directed way, presupposing the form of the representation searched for. How can we begin to search for empirical regularities if we do not expect to be able to arrive at concepts in the face of nature's infinite manifold forms? For the sake of its own use the RPJ must presuppose nature's suitability to our cognitive faculties, otherwise this activity lacks the required direction and motivation.

7.5 Conclusion

While the account of reflection has accompanied us throughout this study, I have waited to treat it extensively up to the point where the transcendental principle is fully on the table. Reflection has been defined in the Introduction as the search for conceptual representations, mediately related to objects through features, to refer by way of concepts to representations we encounter in nature. Within this context, searching is a process of selecting features in order to allow a classification, including reflection on the method, means and selection criteria.

In the current chapter we provided the textual evidence for this

 $^{^{596}\}mathrm{A}$ similar point is made in V:179 f., 185, 386, XX:203, 209, 212, 213 and IX:94.

claim by consulting notes from the context of Kant's Lectures on Logic, mainly related to the so-called threefold logical act: comparison, reflection and abstraction. These steps are required to acquire a concept by (i) comparing features of a set of objects. (ii) reflecting on relevant features and (iii) abstracting from nonrelevant features. While this act is often interpreted as a rather mechanical mapping of available features, I was eager to broaden the scope in order to include a more extensive process of selecting criteria, designing methods and even providing an alternative paradigm. Inductive and analogical reasoning fit within this account of reflection since both imply a reflection on the kind of reasoning involved to arrive at a conclusion in accordance with the three maxims of the sensus communis: autonomous, emphatic and coherent thinking. Moreover, both aesthetic judgements and teleological judgements about natural purposes can be related to that account of reflection, since these kind of reflecting judgement do not arrive at a concept, but rather state the relation of the subject to the object. In all of these cases I have emphasised the distinction between reflection and determination to highlight the moment of reflection.

As different as the various accounts of reflection can be, I have been able to develop this account in regard of a *common* element, namely the dependency on the principle of purposiveness for the sake of the RPJ. We have stated that reflection is only possible insofar as the principle of purposiveness is applied; only if the a priori presupposition is made that nature is responsive to the discursive character of our mind are we able to reflect. This means that for the sake of its own use the RPJ must presuppose nature's suitability to our cognitive faculties, otherwise this activity cannot be carried out. In regard to induction and analogy we already highlighted the presupposition of the principle of purposiveness to proceed from general to particular representations (cf. 7.2). In case of the inquiry into nature, reflection is also directed to a certain outcome insofar as the principle of purposiveness, manifested in certain maxims, is presupposed. In case of the aesthetic judgement the principle of purposiveness is presented in nature, stating that nature has been organised by a supersensible "principle of the unity of the manifold" (V:180) such that it is responsive to the particular character of our mind. Moreover,

285

in regard to teleological judgements about organised objects in nature we are also explicitly following a maxim, derived from the principle of purposiveness, to secure the unity of experience. Finally, the discussion of the transcendental reflection clarified that the principle of purposiveness is *not* required for all kinds of reflection available in Kant's work; only insofar as this principle guides the act of reflection are we dealing with an activity carried out by the RPJ.

Conclusion

This inquiry aims to develop an approach to the third *Critique* which is characterised by an emphasis on its transcendental aspect. The need for such an approach is born out of an evaluation of available secondary literature in chapter 1, presenting a considerable tendency among interpreters towards piecemeal readings. These kind of readings focus on particular themes in the KU in an isolated manner, detached from other aspects of the work. Yet while this kind of specialization drives our understanding of particular matters in the KU and aligns those matters with contemporary discussions, it hinders our overview of the work as a unity. Stepping back, I have developed a reading which aims to do justice to the complete work, emphasising certain aspects which often get lost in more detailed debates around the KU. This reading, characterised as transcendental, sought to find a common element throughout Kant's work, namely the contribution of the RPJ, guided by the principle of purposiveness, to our relation to objects.

Let me present an example of a fragmentary reading. In the concluding passage of his influential study on the antinomy in the KtU, McLaughlin (1990, p. 180) states that final causes "have played more or less no role at all" in the Dialectics to the KtU. That conclusion is somewhat surprising insofar as the conflict of the two maxims is, from my perspective (cf. 2.3.3), clearly born out of the impossibility of describing certain organised objects other than teleologically. Since McLaughlin fears that Kant's commitment to the mechanistic worldview would be compromised by these non-mechanical descriptions, he ignores the role

of the main transcendental principle. One of the manifestations of this principle is a maxim stating that we need to judge some objects teleologically for the sake of the unity and continuity of experience. Ignoring that principle, like McLaughlin does, is only possible if the famous antinomy is treated in isolation from the overall transcendental problem in the KU. According to my reconstruction in 5.3 and 7 the Deduction presents a solid justification of the necessity to presuppose the purposiveness of nature if we reflect on nature's empirical laws for the unity and continuity of experience.

In defence of this exemplary case of a piecemeal reading it can be stated that Kant, on a certain reading, confronts us in the Antinomy with a genuine philosophical puzzle, namely how a teleological and a mechanical description relate to each other. Something similar can be said, for instance, for the relation between pleasure and judgements of taste. These kind of puzzles are well-stated, whereas a similarly stated question of inquiry for the KU as a unity seems absent in the KU. Indeed, a piecemeal reading can be justified by implicitly or explicitly assuming the KU's inconsistency and confusion à la Schopenhauer. Indeed, it cannot be denied that the main bulk of the book addresses issues related to taste and organised bodies, discussed in a strictly separated fashion, rather than a transcendental principle. Yet if the answer to the various puzzles in the KU cannot be related to other problems in the work, which is nota bene the case for some discussions of isolated problems in the KU, it indicates the lack of a charitable approach. Differently, I have presented clues of a transcendental project in 1.3.

At the end of the day, the dispute boils down to the question how to treat the KU in the face of its fragmented character. In this regard this current inquiry presents a competing assumption, stating that the third Critique does not present a mere collection of isolated philosophical puzzles, but one coherent transcendental argument. According to this approach, the main focus is on the necessary contribution of our mind to the representations of objects, in this case, the principle of purposiveness guiding the act of reflection. Over the course of the previous chapters I have tested such a charitable reading and arrived at the conclusion that it can be successful. I do not pretend to have delivered a

full commentary, since the chosen level of abstraction overlooks many details, rather it can be taken as a preparation for a more detailed reading from this perspective. The complicated structure of this study indicates how demanding such an undertaking is in the sense that there are presuppositions to elaborate and counterarguments to battle, intertwined in many ways with the previous critical work. Hence, this study's main contribution lies in highlighting that background structure while strengthening the coherence with the previous critical works.

Main Presuppositions

This conclusion will be used to offer an overview of the main presuppositions required for my reading as well as the main counterarguments I faced. These points do not necessarily correspond to the order of the inquiry itself; this Conclusion stands on its own rather than being a summary of the previous chapters. Summaries of each chapter are provided at the end of every chapter.

• The main presupposition deployed in this study states that we are dealing with a contribution to transcendental philosophy. The work's title, the types of arguments (Deduction, Antinomy, etc.) and some explicit references to its transcendental character in the Preface and elsewhere offer clear indications of Kant's commitment to this method (cf. 1.3). Moreover, we find a transcendental a priori principle guiding the application of the RPJ; I have argued that reflection is only possible insofar as the principle is applied (cf. 7.4 and 5.3). The search for conceptual representations is only directed towards that kind of conceptual representation under presupposition of nature's responsiveness to the peculiar character of our mind. Otherwise our search would be arbitrary and blind.

At the same time we must acknowledge a certain asymmetry in regard to previous critical works. Unlike the categories and the categorical imperative, the principle of purposiveness is *not* a determining (law-giving) principle and therefore lacks a domain of application. I have argued that this does not mitigate the transcendental status of the principle

insofar as we are considering the necessary contribution of our mind to the way we relate to objects. Whether that contribution is constitutive or regulative has no relevant effect on its transcendental status.

- A central term Kant adopts from previous work is the account of nature, i. e. the lawfulness of the sum total of objects of experience (cf. 3.2). Following the transcendental principle under consideration, purposiveness is not ascribed to particular objects that appear as beautiful or as teleologically organised to us, but to nature. Moreover, nature is not a given domain of objects out there, but the sum total of possible objects we can know, considering the contribution of our mind to those objects. This changes the scope, namely from particular objects to the sum total of all (immanent) objects as well as the modality of nature's rules, namely from contingent (not a priori) regularities to necessary coherent laws. Similarly, the Leibnizian maxims for our study of nature as well as the maxims of the sensus communis and reason's maxims, which I take to be manifestations of the principle of purposiveness, are also applied to nature rather than to certain (sets of) objects (cf. 5.2). It follows that we are *not* dealing with a regulative principle which we can – much like reason's systematizing maxims – apply where necessary. Rather, this principle is fundamental in regard of our reflective relation to objects.
- According to a main lesson from the KrV the understanding is the lawgiver of nature insofar as the a priori conditions of the possibility of nature are at the same time the most general laws of nature. Apart from these transcendental laws there are further empirical laws of nature, differing in their scope, namely a certain type of object (matter, carbon, trees, etc.), and in the way we gain insight into them, namely by way of reflection on specific experiences rather than by way of transcendental analysis of the conditions of cognition. I have argued in favour of this distinction in 3.4 to give way to the indeterminacy of empirical laws. This indeterminacy is a crucial presupposition for the Deduction of the principle of purposiveness insofar as the contingency of nature's empirical laws stands in conflict with nature's

demand for the continuous determination by necessary laws. In chapter 5 it has been documented how this conflict is solved by the principle of purposiveness.

- According to a recurring formulation of the principle of purposiveness, nature is designed in concert with the peculiar constitution of our mind. Therefore, an interpretation is required to elaborate what is meant by this peculiar character of our mind. I have argued in chapter 4 that one of the main motives to pursue transcendental philosophy is the fundamental distinction between the two stems of cognition in regard to origin and content. The sensible stem is receptive, receiving intuitive (i. e. singular immediate) representations. The intellectual faculty is spontaneous, producing conceptual (i. e. general mediate) representations. At the same time, these stems can and must cooperate in order to contribute to our cognition, otherwise we will produce empty concepts or blind intuitions (cf. 4.4). This mutual dependency of the sensual and the intellectual faculty forces us to relate to objects in a peculiar way which is different from other 'limiting concepts'. In 4.5 I have argued that the peculiarity of our mind refers not just to the two fundamentally different stems, but also to their complex interplay such that the sensual manifold agrees a priori with the form of judgement. At some points in the KU Kant refers to this peculiar constitution as 'discursive'. namely the dependency of our cognition on concepts, "that form required for the power of judgement" (IX:94). Hence, nature's order is, according to the transcendental principle, such that we – as the sensible discursive beings – can search for concepts, rules and laws.
- Insofar as the RPJ reflects rather than constitutes cognition, it is vital to consider further regulative activities discussed elsewhere in the critical work. The prior application which comes to mind is the *regulative activity by reason*. Reason guides the search for the connection and constitution of objects of experience as far as possible towards ideal systematic unity. This is not a license to apply reason's ideas freely, disregarding available empirical concepts, but only where the understanding cannot make progress and is thus in need

of a guide to maximize systematicity. Unlike some interpreters, I do not consider this to be a mere heuristic set-up: I have argued in chapter 6 that Kant is determined to back these directives for our inquiry of reason by transcendental principles, derived from the ideas of reason, while maintaining the regulative – rather than constitutive – status of the directive. Below I will recall why this does not evoke an overlap between both faculties.

Responses to Counterarguments

Having discussed some of the main terminology imported from previous critical works, I would like to move on to the main counterarguments I faced, as well as my responses:

 \star It has been argued repeatedly and vigorously that the execution, the principle and/or the result of the execution of the RPJ and of reason overlap. If this argument goes through, the contribution of this thesis turns rapidly into a pile of scrap paper, since everything I considered to be of particular relevance in the KU was, presumably, already presented in the KrV. Yet I have argued extensively in chapter 6 and in 7.2 why this argument is not effective. There I arrived at the conclusion that the KU offers a necessary condition for the application of the principles of reason while the latter are necessary to direct the understanding towards systematicity.

Reconstructing the Deduction of the principle of purposiveness in chapter 5 helped to specify how the principle diverges from the heuristic-epistemic principles of reason. In the wake of this reconstruction I arrived at the conclusion that the principle of purposiveness is a universal fundamental stance concerning nature's responsiveness to our discursive faculty. This a priori stance is meant to solve the tension between the necessity of the natural lawful order and the contingency of our empirical cognition. Assuming that nature has been organised for us in accordance with our discursive faculty by a supernatural instance is more fundamental than the heuristic principles of reason, whose

main task consists in directing the inquiry of nature towards systematicity. Whereas the principle of purposiveness applies to nature, the maxims of reason only offer support in those cases where we seek systematic cognition. Therefore, this principle, guiding the RPJ during its interaction with nature, is prior to the application of hypothetical reason. Moreover, we saw that the positive contribution of reason can – in a theoretical respect – only be epistemic, namely as a guidance for the understanding towards systematic knowledge, whereas aesthetic judgements and teleological judgements about organised bodies indicate the limits of our cognition rather than contributing to the extent of our cognition.

 \star One of the main motivations behind the piecemeal approach is the *structure* of the KU which hinders an appreciation of the transcendental principle of purposiveness guiding the RPJ. *Prima facie*, the Introduction and the two main parts are not intrinsically connected, since we find a theory of science in the Introduction, a theory of Aesthetics in the KaU and a theory of biology in the KtU. For reasons I have laid out in chapter 2, I do not share the sentiment which is implicitly entailed by all piecemeal readings. Drawing on chapter 2 and 7.4, I would like to present how different parts of the book contribute to the transcendental argument in response.

On my account, the published Introduction, which differs in relevant ways from the EEKU (cf. note 12 on page 27), embeds the KU within the critical project, introduces the RPJ and its guiding principle, offers a Deduction of that principle and finally fits the Aesthetics and the Teleology within that project. According to my reading of the two Introductions in 6.5 they do not contain a philosophy of science; instead I would like to highlight two points. Firstly, what is relevant from our transcendental perspective is the account of reflection, which is not just a reaction to a set of objects or an application of a schema, but a multi-levelled process of selecting common features among a set of objects in order to satisfy a theoretical need for a general representation (see chapter 7). The result can be a generated

concept, but also an insight into a causal structure or dependencies within an order of concepts. This might even, but must not, be directed by an explication and consultation of our rational norms and representational abilities up to the point where a new paradigm is discovered. All these accounts of reflection depend on the same activity and, moreover, they are all guided by the presupposition that nature has been organised in accordance with "that specific form the power of judgement demands" (IX:94), i. e. conceptual representations. This also applies to activities like induction, analogical reasoning and concept acquisition. Secondly, the Deduction in the published Introduction presents how such an activity presupposes nature's responsiveness to the peculiar form of our cognitive faculty, otherwise it would have been a fruitless undertaking to start looking for these kind of representations in the first place. We must, in other words, expect to find concepts to be able to reflect on objects in nature.

Moreover, aesthetic and teleological judgements are not merely an application of reflection; rather, they offer a significant contribution to the overall undertaking in the work, because they present purposiveness in nature. Judgements of taste are relevant, because they reveal the principle of purposiveness; during a sudden confrontation with a beautiful object it truly seems like nature has been organised in accordance with our mind. Only in this pleasurable state of reflection we are exclusively focused on the appropriateness of the representation in regard to the harmonious activity of our cognitive faculties. It is crucial for my position that judgements of taste are only possible because of the reflection on the free play of the faculties. Reflection is on my reading the central moment within this complex, triggering the feeling of pleasure, Lust, and thereby allowing us to autonomously express judgements of taste which everyone should agree to. Lacking the RPJ, the transcendental principle that nature, for reasons unknown, responds to the peculiar character of our mind must be absent as well. The presentation of the principle of purposiveness is identical to the feeling of pleasure (cf. 2.2.2). That is – in a

nutshell – how I see the role of the RPJ and its principle in the first main part of the KU. This is not so much a theory of aesthetics, since we cannot argue about beauty on Kant's account, as a transcendental question; under which conditions can we express judgements of taste?

Teleological judgements about natural purposes are judgements about 'examples' of purposiveness in nature. Because the internal organisation of natural purposes is not analogous to any kind of causality we are aware of, their generation is inexplicable in terms of mechanics. As a result, they need another causal description, according to a maxim of the RPJ, to enable the continuous and coherent experience of nature. Hence, 'natural purpose' is not a final predicate of the object, but an application of the principle of purposiveness without a purpose. Whereas the determining power of judgement can rely on the understanding's schemata to determine objects, the RPJ gives itself a directive in order to arrive at concepts. In the case of both aesthetic judgements and teleological judgements about natural purposes the principle is applied where determination is not possible. leading to subjective reflective judgements guided by the principle of purposiveness. Rather than 'determining' judgements, contributing to cognition, reflective judgements thus express a state of the subject in relation to the object.

Finally, I would like to emphasise a genuine contribution by the KtU. Since natural purposes are within nature, but incomprehensible for us, they evoke an external non-human supernatural designer of nature to explain the existence of the purpose. Answering this theological threat, the KtU offers a significant contribution to the overall transcendental argument, because the reflective status of teleological judgements about natural purposes is emphasised in the context of a comparison with 'limiting concepts' (cf. §§76–7). Hence, rather than a philosophy of biology, this part of the book proves important to situating the maxims of the RPJ and to understanding the regulative status of the principle of purposiveness.

The last response to the assumed fragmentary character of the KU brings us back to the initial problem in the first chapter. Being able to respond to this widely shared reading with an alternative account which integrates the work into the wider transcendental project is the main contribution of this thesis. To seek that common transcendental aspect throughout the work is far from obvious, considering the above list of presuppositions, yet it is necessary, I believe, to emphasise this dimension of the work and meet the requirements of a charitable reading.

Bibliography

Primary Sources

- Aristotle (1995). The Complete Works of Aristotle. The revised Oxford Translation. Ed. by Jonathan Barnes. 6th edition with corrections. Cited according to the Bekker's code. Princeton: Princeton University Press.
- Baumgarten, Alexander Gottlieb (2011). Metaphysica, Metaphysik. Historisch-kritische Ausgabe. Ed. by Günter Gawlick and Lothar Kreimendahl. Forschungen und Materialien zur deutschen Aufklärung 1,2. Stuttgart & Bad Cannstatt: frommannholzboog.
- Cicero (1928). De Re Publica, De Legibus. Trans. by Clinton W. Keyes. Cambridge: Harvard University Press.
- Descartes, René (1982–91). *Œuvres de Descartes*. Ed. by Charles Adam and Paul Tannery. "nouvelle présentation". Paris: Vrin.
- Hegel, Georg Wilhelm Friedrich (1971). "Glauben und Wissen". In: Werke in zwanzig Bänden. Ed. by Eva Moldenhauer and Karl Markus Michel. Vol. II. Frankfurt am Main: Suhrkamp.
- Hume, David (2009). A Treatise of Human Nature. Ed. by David Fate Forton and Mary J. Norton. New York: Oxford University Press.
- Kant, Immanuel (1998). Critique of Pure Reason. Trans. by Paul Guyer and Allen Wood. The Cambridge edition of the works of Immanuel Kant. Cambridge University Press.
- (2000). Critique of the Power of Judgment. Trans. by Paul Guyer and Eric Matthews. The Cambridge Edition of the

- Works of Immanuel Kant. Cambridge: Cambridge University Press.
- Kant, Immanuel (1902 ff.). Kants gesammelte Schriften. Ed. by Königlich Preußische Akademie der Wissenschaften. Berlin: Walter de Gruyter.
- (1992). Lectures on Logic. Ed. and trans. by Michael Young.
 The Cambridge edition of the works of Immanuel Kant. Cambridge: Cambridge University Press.
- (1996). Practical Philosophy. Ed. and trans. by Mary J. Gregor. The Cambridge edition of the works of Immanuel Kant. Cambridge: Cambridge University Press.
- (2002). Theoretical Philosophy After 1781. Trans. by Gary Hatfield et. al. The Cambridge edition of the works of Immanuel Kant. Cambridge: Cambridge University Press.
- Leibniz, Gottried Wilhelm (1989). *Philosophical Essays*. Trans. by Roger Ariew; Daniel Garber. Indianapolis: Hackett.
- (1952). Theodicy: Essays on the Goodness of God, the Freedom of Man, and the Origin of Evil. Ed. by Austin Farre. Trans. by E. M. Huggard. New Haven: Yale University Press.
- Linnaeus, Carl (1735). Systema Natura sive regna tria natura systematice proposita per classes, ordines, genera, and species. First edition. Leiden: Theodorum Haak.
- Locke, John (1991). An Essay concerning Human Understanding. Ed. by Peter H. Nidditch. Oxford: Clarendon Press.
- Maimon, Salomon (2004). Versuch über die Transzendentalphilosophie. Philosophische Bibliothek 552. Hamburg: Felix Meiner.
- Newton, Isaac (1704). Opticks. Or, a Treatise of the Reflexions, Refractions, Inflexions and Colours of Light. Also Two Treatises of the Species and Magnitude of Curvilinear Lines. London.
- Schopenhauer, Arthur (1977). Die Welt als Wille und Vorstellung. Zürcher Ausgabe. Vol. 1/2. Zürich: Diogenes.
- Spinoza, Baruch de (2010). Ethica Ordine Geometrico demonstrata et in quinque Parte distincta. 3rd improved edition. Hamburg: Meiner.

Secondary Literature

- Abela, Paul (2002). Kant's Empirical Realism. New York: Oxford University Press.
- Allison, Henry (1996). "Causality and Causal Law in Kant: A Critique of Michael Friedman". In: *Idealism and Freedom. Essays on Kant's Theoretical and Practical Phiosophy*. Ed. by Henry Allison. Cambridge: Cambridge University Press, pp. 80–91.
- (2000). "Is the Critique of Judgement 'Post-critical'?" In: The Reception of Kant's Critical Philosophy: Fichte, Schelling and Hegel. Ed. by Sally Sedgwick. Cambridge: Cambridge University Press, pp. 78–92.
- (1992). "Kant's Antinomy of Teleological Judgment". In: Southern Journal of Philosophy 30.1, pp. 25–42. DOI: 10.1111/j. 2041-6962.1992.tb00654.x.
- (2011). Kant's Groundwork for the Metaphysics of Morals: A Commentary. Oxford. Oxford University Press.
- (2001). Kant's Theory of Taste. Modern European Philosophy. Cambridge: Cambridge University Press.
- (2004). Kant's Transcendental Idealism. Revised and Enlarged Edition. Yale: Yale University Press.
- Ameriks, Karl (2003). "New Views on Kant's Judgment of Taste". In: *Interpreting Kant's Critiques*. Oxford: Oxford University Press, pp. 307–323.
- Anscombe, G. E. M. (1957). *Intention*. Cambridge: Harvard University Press.
- Arendt, Hannah (1985). Das Urteilen. Texte zu Kants Politischer Philosophie. Ed. by Ronald Beiner. München & Zürich: Piper.
- Baeumler, Alfred (1967). Kants Kritik der Urteilskraft. Ihre Geschichte und Systematik. Das Irrationalitätsproblem in der Ästhetik und Logik des 18. Jahrhunderts bis zur Kritik der Urteilskraft I. Darmstadt: Wissenschaftliche Buchgesellschaft.
- Bartuschat, Wolfgang (1972). Zum systematischen Ort von Kants Kritik der Urteilskraft. Philosophische Abhandlungen 43. Franfurt am Main: Vittorio Klostermann.
- Beck, Lewis White (1981). "Kant on the Uniformity of Nature". In: Synthese 47.3, pp. 449–464.
- Bird, Graham (2006). The Revolutionary Kant: A Commentary on the Critique of Pure Reason. Chicago & La Salle: Carus.

- Boer, Karin de (2010). "Pure Reason's Enlightenment: Transcendental Reflection in Kant's First Critique". In: *Kant Yearbook* 2.1, pp. 53–73. DOI: 10.1515/9783110222937.53.
- Bojanowski, Jochen (2008). "Kant über das Prinzip der Einheit von theoretischer und praktischer Philosophie (Einleitung I–V)". In: *Immanuel Kant:* Kritik der Urteilskraft. Ed. by Otfried Höffe. Vol. 33. Klassiker Auslegen. Berlin: Akademie Verlag, pp. 23–40.
- Borges, Jorge Louis (1964). Other Inquisitions (1937–1952). Trans. by Ruth L. C. Simms. University of Texas Press.
- Boyle, Matthew (2012). "Essentially Rational Animals". In: *Rethinking Epistemology*. Ed. by Günter Abel and James Conant. Vol. 2. Berlin & New York: De Gruyter, pp. 395–428. DOI: 10.1515/9783110277944.395.
- Brandt, Reinhard (1989). "The Deductions in the Critique of Judgment: Comments on Hampshire and Horstmann". In: *Kant's Transcendental Deductions*. Ed. by Eckart Förster. Stanford: Standford University Press, pp. 177–190.
- Breitenbach, Angela (2009). Die Analogie von Vernunft und Natur: Eine Umweltphilosophie nach Kant. Berlin/New York: De Gruyter.
- Breitenbach, Angela (2015). "Interview with Hannah Ginsborg". In: *The Reasoner*. Vol. 9. 15, pp. 55–7.
- (2011). "Kant on Causal Knowledge. Causality, Mechanism and Reflective Judgement". In: Causation and Modern Philosophy.
 Ed. by K. Allen and T. Stoneham. London: Routledge, pp. 201–219.
- (2006). "Mechanical Explanation of Nature and its Limits in Kant's Critique of Judgment". In: Studies in History and Philosophy of Science Part C 37.4, pp. 694-711. DOI: 10.1016/ j.shpsc.2006.09.001.
- Brüggemeier, Franz-Josef et al., ed. (2005). How Green were the Nazis? Nature, Environment and State in the Third Reich. Athens: Ohio University Press.
- Buchdahl, Gerd (1992). Kant and the Dynamics of Reason: Essays on the Structure of Kant's Philosophy. Oxford & Cambridge: Blackwell.
- Burge, Tyler (2003). "Reflection". In: Cognition Through Understanding: Self-Knowledge, Interlocution, Reasoning, Reflection. Oxford: Oxford University Press, pp. 534–55.

- Carl, Wolfgang (2013). "The Copernican Turn and Stroud's Argument from Indispensability". In: Self, World, Art. Metaphysical Topics in Kant and Hegel. Ed. by Dina Emundts. Berlin & Boston: Walter de Gruyter, pp. 79–92.
- Cassirer, Ernst (1923). Das Erkenntnisproblem in der Philosophie und Wissenschaft der neueren Zeit. 2nd edition. Vol. Die nachkantische Systeme. Berlin: Bruno Cassirer.
- (1921). Kants Leben und Lehre. Berlin: Bruno Cassirer.
- Chignell, Andrew (2006). "Beauty as a Symbol of Natural Systematicity". In: *British Journal of Aesthetics* 46.4, pp. 406–415. DOI: 10.1093/aesthj/ayl023.
- (2007). "Kant's Concepts of Justification". In: *Noûs* 41.1, pp. 33-63. DOI: 10.1111/j.1468-0068.2007.00637.x.
- (2014). "Modal Motivations for Noumenal Ignorance: Knowledge, Cognition, and Coherence". In: *Kant-Studien* 105.4, pp. 573–597. DOI: 10.1515/kant-2014-0027.
- Cohen, Hermann (1889). Kants Begründung der Ästhetik. Berlin: F. Dümmler.
- Conant, James (2012). "Two Varieties of Skepticism". In: Rethinking Epistemology. Ed. by Günther Abel and James Conant. Vol. 2. Berlin: Walter de Gruyter, pp. 1–73.
- Dawkins, Richard and Yan Wong (2016). The Ancestor's Tale: A Pilgrimage to the Dawn of Life. Updated and extended edition. Berlin: Weidenfeld & Nicolson.
- Deleuze, Gilles (1967). Différence et Répétition. Paris: Presses univ. de France.
- Dryer, Douglas Poole (1966). Kant's Solution for Verification in Metaphysics. London: George Allen.
- Düsing, Klaus (1968). Die Teleologie in Kants Weltbegriff. 2nd extended edition. Kant-Studien Ergänzungshefte 96. Bonn: Bouvier.
- (2013). "Mechanismus und Teleologie in Kants 'Kritik der Urteilskraft'". In: Immanuel Kant: Aufklärung und Kritik. Untersuchungen zur kritischen Philosophie in Erkenntnistheorie, Ethik, Ästhetik und Metaphysik. Vol. 89. Studien und Materialien zur Geschichte der Philosophie. Hildesheim et. al.: Georg Olms, pp. 95–109.
- Eco, Umberto (1993). Kunst und Schönheit im Mittelalter. München: DTV Verlagsgesellschaft.

- Engstrom, Stephen (2006). "Understanding and Sensibility". In: *Inquiry* 49.1, pp. 2–25. DOI: 10.1080/00201740500497225.
- Euler, Werner (2015). "Zweck". In: *Kant-Lexikon*. Ed. by Marcus Willaschek et al. Vol. 3. Berlin & Boston: Walter de Gruyter, pp. 2745–53.
- Falkenburg, Brigitte (2000). Kants Kosmologie. Die wissenschaftliche Revolution der Naturphilosophie im 18. Jahrhundert. Frankfurt am Main: Klostermann.
- Ferrarin, Alfredo (2015). The Powers of Pure Reason. Kant and the Idea of Cosmic Philosophy. Chicago: University of Chicago Press.
- Ferrini, Cinzia (2000). "Testing the Limits of Mechanical Explanation in Kant's Pre-Critical Writings". In: Archiv für Geschichte der Philosophie 82.3, pp. 297–331. DOI: 10.1515/agph.2000.82.3.297.
- Fisher, Saul (2003). "Early Modern Philosophy and Biological Thought". In: *Perspectives on Science* 11.4, pp. 373–377. DOI: 10.1162/106361403773082225.
- Förster, Eckart (2012). Die 25 Jahre der Philosophie. Eine systematische Rekonstruktion. 2nd extented edition. Philosophische Abhandlungen 102. Frankfurt am Main: Vittorio Klostermann.
- (2002). "Die Bedeutung von §§76, 77 der 'Kritik der Urteilskraft' für die Entwicklung der Nachkantischen Philosophie [Teil 1]".
 In: Zeitschrift für Philosophische Forschung 56.2, pp. 169–190.
- (1989). "How are Transcendental Arguments Possible?" In: Reading Kant. Ed. by Wilhelm Vossenkuhl and Eva Schaper. Oxford: Blackwell, pp. 3–20.
- (2000). Kant's Final Synthesis: An Essay on the Opus Postumum. Cambridge: Harvard University Press.
- (2003). "Reply to Friedman and Guyer". In: *Inquiry: An Interdisciplinary Journal of Philosophy* 46.2, pp. 228–238. DOI: 10.1080/00201740310002280.
- (2015). "Transzendentalphilosophie". In: *Kant-Lexikon*. Ed. by Marcus Willascheck et. al. De Gruyter, pp. 2319–2326.
- (2008). "Von der Eigentümlichkeit unseres Verstandes in Ansehung der Urteilskraft (§§74–78)". In: *Immanuel Kant. Kritik der Urteilskraft*. Ed. by Otfried Höffe. Klassiker Auslegen 33. Berlin: Akademie Verlag, pp. 259–74.

- Franks, Paul W. (2005). All or Nothing: Systematicity, Transcendental Arguments, and Skepticism in German Idealism. Cambridge: Harvard University Press.
- Friedman, Michael (1992a). "Causal Laws and the Foundation of Natural Science". In: *The Cambridge Companion to Kant.* Ed. by Paul Guyer. Cambridge: Cambridge University Press, pp. 161–99.
- (2003). "Eckart Förster and Kant's Opus Postumum". In: *Inquiry* 46.2, pp. 215–227.
- (1992b). Kant and the Exact Sciences. Cambridge: Harvard University Press.
- (2013). Kant's Construction of Nature: A Reading of the Metaphysical Foundations of Natural Science. Cambridge: Cambridge University Press.
- (1992c). "Regulative and Constitutive". In: Southern Journal of Philosophy 30.1, pp. 73–102. DOI: 10.1111/j.2041-6962. 1992.tb00658.x.
- Fulda, Hans Friedrich and Rolf-Peter Horstmann, eds. (1990). Hegel und die 'Kritik der Urteilskraft'. Stuttgart: Klett-Cota.
- Geiger, Ido (2009). "Is Teleological Judgement (Still) Necessary? Kant's Arguments in the Analytic and in the Dialectic of Teleological Judgement". In: British Journal for the History of Philosophy 17.3, pp. 533–566. DOI: 10.1080/09608780902986649.
- (2003). "Is the Assumption of a Systematic Whole of Empirical Concepts a Necessary Condition of Knowledge?" In: Kant-Studien 94.3, pp. 273–298. DOI: 10.1515/kant.2003.016.
- Ginsborg, Hannah (2006). "Kant and the Problem of Experience". In: *Philosophical Topics* 34.1/2 (Analytic Kantianism), pp. 59–106. DOI: 10.5840/philtopics2006341/24.
- (1997). "Lawfulness Without a Law. Kant on the Free Play of Imagination and Understanding". In: *Philosophical Topics* 25.1 (Aesthetics), pp. 37–81. DOI: 10.5840/philtopics199725119.
- (1990). "Reflective Judgment and Taste". In: *Noûs* 24.1, pp. 63–78. DOI: 10.2307/2215613.
- (2015). The Normativity of Nature: Essays on Kant's Critique of Judgment. Oxford: Oxford University Press.
- (2004). "Two Kinds of Mechanical Inexplicability in Kant and Aristotle". In: *Journal of the History of Philosophy* 42.1, pp. 33–65.

- Giordanetti, Piero (2009). "Sachanmerkungen". In: Kritik der Urteilskraft. Mit einer Einleitung und Bibliographie. Ed. by Heiner F. Klemme. Hamburg: Meiner, pp. 431–470.
- Goy, Ina (2017). Kants Theorie der Biologie. Ein Kommentar. Eine Lesart. Eine historische Einordnung. Kantstudien-Ergänzungshefte 190. Berlin: De Gruyter.
- Grier, Michelle (2001). Kant's Doctrine of Transcendental Illusion. Cambridge: Cambridge University Press.
- (2006). "The Logic of Illusion and the Antinomies". In: A Companion To Kant. Ed. by Graham Bird. Blackwell Companions to Philosophy. Oxford: Blackwell, pp. 192–207.
- Grüne, Stefanie (2009). Blinde Anschauung. Die Rolle von Begriffen in Kants Theorie sinnlicher Synthesis. Frankfurt am Main: Vittorio Klostermann.
- Guyer, Paul (2016). "18th Century German Aesthetics". In: *The Stanford Encyclopedia of Philosophy*. Ed. by Edward N. Zalta. Winter 2016. Metaphysics Research Lab, Stanford University.
- (1992). "Introduction: The Starry Heavens and the Moral Law".
 In: Cambridge Companion to Kant. Ed. by Paul Guyer. Cambridge: Cambridge University Press, pp. 1–25.
- (1987). Kant and the Claims of Knowledge. Cambridge and New York: Cambridge University Press.
- (1997). Kant and the Claims of Taste. $2^{\rm nd}$ edition. Cambridge: Cambridge University Press.
- (2005). Nature and Freedom. Selected Essays. Oxford: Clarendon Press.
- (1990). "Reason and Reflective Judgment: Kant on the Significance of Systematicity". In: Noûs 24.1, pp. 17–43. DOI: 10.2307/2215611.
- (2009). "The Harmony of the Faculties in Recent Books on the Critique of the Power of Judgment". In: Journal of Aesthetics and Art Criticism 67.2, pp. 201–221.
- (2006). "The Harmony of the Faculties Revisited". In: Aesthetics and Cognition in Kant's Critical Philosophy. Ed. by Rebecca Kukla. Cambridge University Press, pp. 162–193.
- Haag, Johannes (2019). "Darstellungen der Zweckmäßigkeit in Kants Kritik der Urteilskraft". In: *Teleologische Reflexionen in Kants Philosophie*. Ed. by Paul Órdenes Paula and Anna Pickan. Springer, pp. 167–190.

- Haag, Johannes (2012). "Die Funktion von Grenzbegriffen. Symposium Zu: Eckart Förster: Die 25 Jahre der Philosophie". In: Deutsche Zeitschrift für Philosophie 60.6, pp. 993–1001.
- (2007). Erfahrung und Gegenstand. Das Verhältnis von Sinnlichkeit und Verstand. Philosophische Abhandlungen 95. Frankfurt am Main: Vittorio Klostermann.
- Hanna, Robert (2001). Kant and the Foundations of Analytic Philosophy. Oxford: Oxford University Press.
- (1993). "The Trouble with Truth in Kant's Theory of Meaning". In: *History of Philosophy Quarterly* 10.1, pp. 1–20.
- Heidegger, Martin (2010). Kant und das Problem der Metaphysik. 7th edition. Frankfurt am Main: Vittorio Klostermann.
- Henrich, Dieter (1994). "Kant's Explanation of Aesthetic Judgment". In: Aesthetic judgement and the Moral Image of the World: Studies in Kant. Vol. Studies in Kant and German Idealism. Stanford: Stanford University Press, pp. 29–56.
- (1989). "Kant's Notion of a Deduction and the Methodological Background of the First Critique". In: Kant's Transcendental Deductions. The Three Critiques and the Opus Postumum. Ed. by Eckart Förster. Palo Alto: Stanford University Press, pp. 29–46.
- Hintikka, Jaakko (1974). Knowledge and the Known: Historical Perspectives in Epistemology. Dordrecht: Reidel.
- Horkheimer, Max (1925). Über Kants Kritik der Urteilskraft als Bindeglied zwischen theoretischer und praktischer Philosophie. Habilitation. Frankfurt am Main: J. B. Hirschfeld.
- Horstmann, Rolf-Peter (1989). "Why must there be a transcendental deduction in Kant's Critique of Judgment? The Three Critiques and the Opus postumum." In: Kant's Transcendental Deductions. The Three Critiques and the Opus Postumum. Ed. by Eckart Förster. Standford Series in Philosophy; Studies in Kant and German Idealism. Palo Alto: Stanford University Press, pp. 157–176.
- Huizinga, Johan (1974). Homo Ludens. Proeve eener bepaling van het spel-element der cultuur. 6th edition. Groningen: H. D. Tjeenk Willink.
- Keil, Geert (2001). Wo hat Kant das Prinzip vom nomologischen Charakter der Kausalität begründet? Ed. by Volker Gerhardt et al. Berlin & New York: De Gruyter, pp. 562–71.

- Kitcher, Philip (1986). "Projecting the Order of Nature". In: Kant's Philosophy of Physical Science. Ed. by Robert Butts. The University of Western Ontario Series in Philosophy of Science. 33. Dordrecht: D. Reidel, pp. 201–235.
- (1994). "The Unity of Science and the Unity of Nature". In:
 Kant and Contemporary Epistemology. Ed. by Paolo Parrini.
 The University of Western Ontario Series in Philosophy of Science. 54. Dordrecht: Kluwer, pp. 253–272.
- Klemme, Heiner F. (2009). "Erste Einleitung in die Kritik der Urteilskraft. Zur Entstehungsgeschichte und Drucklegung". In: Kritik der Urteilskraft. Mit einer Einleitung und Bibliographie. Ed. by Heiner F. Klemme. Hamburg: Meiner, pp. 473–481.
- Korsgaard, Christine M. (1996). "The Authority of Reflection". In: *The Sources of Normativity*. Ed. by Onora O'Neill. Cambridge: Cambridge University Press, pp. 90–130.
- Krämling, Gerhard (1985). Systembildende Rolle von Ästhetik und Kulturphilosophie bei Kant. München: Alber Freiburg.
- Kreines, James (2007). "Between the Bounds of Experience and Divine Intuition: Kant's Epistemic Limits and Hegel's Ambitions". In: *Inquiry* 50.3, pp. 306–334. DOI: 10.1080/00201740701356253.
- (2009). "Kant on the Laws of Nature: Laws, Necessitation, and the Limitation of Our Knowledge". In: European Journal of Philosophy 17.4, pp. 527–558. DOI: 10.1111/j.1468-0378. 2008.00322.x.
- (2005). "The Inexplicability of Kant's Naturzweck: Kant on Teleology, Explanation and Biology". In: Archiv für Geschichte der Philosophie 87.3, pp. 270–311. DOI: 10.1515/agph.2005. 87.3.270.
- Kuhlenkampff, Jens (1978). Kant's Logik des ästhetischen Urteils. Frankfurt am Main: Vittorio Klostermann.
- ed. (1974). Materialien zu Kants "Kritik der Urteilskraft". Frankfurt am Main: Suhrkamp.
- Kuhn, Thomas (1996). The Structure of Scientific Revolutions. $3^{\rm rd}$ edition. Chicago: Chicago University Press.
- Land, Thomas (2011). "Kantian Conceptualism". In: *Rethinking Epistemology*. Ed. by Guenther Abel and James Conant. Frankfurt am Main: De Gruyter, pp. 197–239.
- Latour, Bruno (2017). Facing Gaia: Eight Lectures on the New Climatic Regime. Trans. by Catherine Porter. Cambridge: Polity.

- Laywine, Alison (1993). Kant's Early Metaphysics and the Origins of the Critical Philosophy. North American Kant Society Studies in Philosophy 3. Atascadero: Ridgeview Publications.
- Liedtke, Max (1964). "Der Begriff der reflektierenden Urteilskraft in Kants Kritik der reinen Vernunft". PhD thesis. Hamburg: Universität Hamburg.
- (1966). "Der Begriff der Reflexion bei Kant". In: Archiv für Geschichte der Philosophie 48.1–3, pp. 207–216. DOI: 10.1515/agph.1966.48.1–3.207.
- Longuenesse, Béatrice (1998). Kant and the Capacity to Judge. Sensibility and Discursivity in the Transcendental Analytic of the Critique of Pure Reason. Trans. by C. T. Wolfe. Princeton: Princeton University Press.
- (2003). "Kant's Theory of Judgment, and Judgments of Taste: On Henry Allison's 'Kant's Theory of Taste'". In: *Inquiry* 46.2, pp. 143–163. DOI: 10.1080/00201740310001164.
- (2005). "The Transcendental Ideal and the Unity of the Critical System". In: *Kant on the Human Standpoint*. Cambridge: Cambridge University Press, pp. 211–235.
- Lord, Beth (2011). Kant and Spinozism. Transcendental Idealism and Immance from Jacobi to Deleuze. Renewing Philosophy. Basingstoke: Palgrave Macmillan.
- Lovelock, James (2000). *Gaia*. Reissue with new preface and corrections. Oxford: Oxford University Press.
- Löw, Reinhard (1980). Philosophie des Lebendigen: Der Begriff des Organischen bei Kant, sein Grund und seine Aktualität. Frankfurt am Main: Suhrkamp.
- Marc-Wogau, Konrad (1938). Vier Studien zu Kants Kritik der Urteilskraft. Vol. 2. Uppsala universitets årsskrift. Uppsala: A.-B. Lundequistska Bohandeln.
- Mayr, Ernst (1988). "The Multiple Meanings of Teleological". In: Towards a New Philosophy of Biology: Observations of an Evolutionist. Cambridge: Harvard University Press, pp. 38–66.
- McLaughlin, Peter (1990). Kant's Critique of Teleology in Biological Explanation. Antinomy and Teleology. Vol. 16. Studies in History of Philosophy. Lewiston: The Edwin Mellen Press.
- (1989). Kants Kritik der teleologischen Urteilskraft. Abhandlungen zur Philosophie, Psychologie und Pädagogik 221. Bonn: Bouvier.

- Mendizabal, Isabel (2012). "Reconstructing the Population History of European Romani from Genome-wide Data". In: Current Biology 22.24, pp. 2342-2349. DOI: 10.1016/j.cub.2012. 10.039. URL: http://www.sciencedirect.com/science/article/pii/S0960982212012602.
- Menting, Thijs (2016). "Kontingenz, Ordnung und realer Grund bei Kant". In: *Kosmos and Kontingenz*. Ed. by Reto Rössler et. al. Paderborn: Wilhelm Fink, pp. 156–169.
- Merritt, Melissa McBay (2015). "Varieties of Reflection in Kant's Logic". In: *British Journal for the History of Philosophy* 23.3, pp. 478–501. DOI: 10.1080/09608788.2015.1018129.
- Mikkelsen, Jon M. (2013). "Translator's Introduction". In: Kant and the Concept of Race: Late Eighteenth-Century Writings. Albany: State University of New York Press, pp. 1–40.
- Moore, A. W. (2012). The Evolution of Modern Metaphysics: Making Sense of Things. Cambridge: Cambridge University Press.
- Newton, Alexandra (2012). "Kant on the Logical Origin of Concepts". In: European Journal of Philosophy 23.3, pp. 456–484. DOI: 10.1111/j.1468-0378.2012.00545.x.
- O'Shea, James R. (1997). "The Needs of Understanding: Kant on Empirical Laws and Regulative Ideals". In: *International Journal of Philosophical Studies* 5.2, pp. 216–254. DOI: 10.1080/096725597342263.
- Ott, Walter R. (2009). Causation and Laws of Nature in Early Modern Philosophy. Oxford, New York: Oxford University Press.
- Perler, Dominik (2006). *René Descartes*. 2nd extended edition. Beck'sche Reihe Denker. München: C.H. Beck.
- Peter, Joachim (1992). Das transzendentale Prinzip der Urteilskraft: eine Untersuchung zur Funktion und Struktur der reflektierenden Urteilskraft. Kantstudien: Ergänzungshefte 126. Berlin: Walter de Gruyter.
- Pippin, Robert (2018). "The Dynamism of Reason in Kant and Hegel". In: *Kant on Persons and Agency*. Ed. by Eric Watkins. Cambridge: Cambridge University Press, pp. 192–210.
- Pippin, Robert B. (1979). "Kant on Empirical Concepts". In: Studies in History and Philosophy of Science Part A 10.1, pp. 1–19. DOI: 10.1016/0039-3681(79)90002-5.

- (1982). Kant's Theory of Form. New Haven & London: Yale University Press.
- (1996). "The Significance of Taste: Kant, Aesthetic and Reflective Judgment". In: Journal of the History of Philosophy 34.4, pp. 549–569. DOI: 10.1353/hph.1996.0086.
- Pollok, Konstantin (2001). Kants 'Metaphysische Anfangsgründe der Naturwissenschaft'. Ein Kritischer Kommentar. Kant-Forschungen 13. Hamburg: Meiner.
- (2014). "'The Understanding Prescribes Laws to Nature': Spontaneity, Legislation, and Kant's Transcendental Hylomorphism".
 In: Kant-Studien 105.4, pp. 509–530. DOI: 10.1515/kant-2014-0024.
- (2006). "Von der Transzendentalphilosophie zum Vergnügen. Die Karriere der Wahrnehmungsurteile in der Kritischen Philosophie Kants". In: Die Vollendung der Transzendentalphilosophie in Kants Kritik der Urteilskraft. Ed. by R. Hiltscher et. al. Berlin: Duncker & Humblot, pp. 235–57.
- Prien, Bernd (2006). Kants Logik der Begriffe. Die Begriffslehre der formalen und transzendentalen Logik Kants. Berlin & New York: Walter de Gruyter.
- Quarfood, Marcel (2011). "Discursivity and Transcendental Idealism". In: Kant's Idealism. New Interpretations of a Controversial Doctrine. Ed. by Dennis Schulting and Jacco Verburgt. Vol. 66. The New Synthese Historical Library. Dordrecht et al.: Springer, pp. 143–158. DOI: 10.1007/978-90-481-9719-4_8.
- Radford, Tim (2016). "Grativational Waves: Breakthrough Discovery after a Century of Expectation". In: *The Guardian*. Retrieved September 19 2017. URL: https://www.theguardian.com/science/2016/feb/11/gravitational-waves-discovery-hailed-as-breakthrough-of-the-century.
- Rang, Bernard (1990). "Naturnotwendigkeit und Freiheit: zu Kants Theorie der Kausalität als Antwort auf Hume". In: Kant-Studien 81, pp. 24–56. DOI: 10.1515/kant.1990.81.1.24.
- Recki, Birgit (2001). Ästhetik der Sitten: die Affinität von ästhetischem Gefühl und praktischer Vernunft bei Kant. Philosophische Abhandlungen 81. Frankfurt am Main: Vittorio Klostermann.
- Rodríguez, Manuel Sánchez (2012). "Logica Naturalis, Healthy Understanding and the Reflecting Power of Judgment in Kant's Philosophy. The Source of the Problem of Judgment in the

- Leibniz-Wolffian Logic and Aesthetics". In: *Kant-Studien* 103.2, pp. 188–206. DOI: 10.1515/kant-2012-0011.
- Roedl, Sebastian (2001). "Handlungen, die einen Begriff ausmachen". In: Kant und die Berliner Aufklärung. Akten des IX. Internationalen Kant-Kongress. Ed. by Volker et al. Gerhardt. De Gruyter, pp. 429–435.
- Roser, Andreas and Thomas Mohrs (1993). Kant-Konkordanz: zu den Werken Immanuel Kants (Bände I–IX der Ausgabe der Preußischen Akademie der Wissenschaften). Vol. 5: Logisch Plato. Hildesheim: Olms-Weidmann.
- Schlösser, Ulrich (2013). "Concept Formation, Judgment and Synthesis: Kant on the Logical and Cognitive Activities of the Mind". In: Self, World and the Arts: Studies in Kant's and Hegel's Metaphysics. Ed. by Dina Emundts. Berlin: De Gruyter, pp. 173–203.
- Schrödinger, Erwin (1935). "Die gegenwärtige Situation in der Quantenmechanik". In: *Die Naturwissenschaften* 23.48, pp. 807–812.
- Smit, Houston (2000). "Kant on Marks and the Immediacy of Intuition". In: *Philosophical Review* 109.2, pp. 235–266. DOI: 10.1215/00318108-109-2-235.
- (1999). "The Role of Reflection in Kant's Critique of Pure Reason". In: *Pacific Philosophical Quarterly* 80.2, pp. 203–223. DOI: 10.1111/1468-0114.00080.
- Soteriou, Matthew (2016). "The Disjunctive Theory of Perception". In: *The Stanford Encyclopedia of Philosophy*. Ed. by Edward N. Zalta. Winter 2016. Metaphysics Research Lab, Stanford University.
- Stadler, August (1874). Kants Teleologie und ihre erkenntnistheoretische Bedeutung: eine Untersuchung. Berlin: Ferdinand Dümmlers Verlagsbuchhandlung, Harrwitz and Gossmann.
- Stang, Nicholas (2016). *Kant's Modal Metaphysics*. Oxford: Oxford University Press.
- Strawson, Peter (1966). The Bounds of Senses. New York: Barnes and Noble.
- Teufel, Thomas (2012). "What Does Kant Mean by 'Power of Judgement' in his Critique of the Power of Judgement?" In: Kantian Review 17.2, pp. 297–326.

- Thöle, Bernard (1991). Kant und das Problem der Metaphysik. Quellen und Studien zur Philosophie 27. Berlin & New York: Walter de Gruyter.
- Toepfer, Georg (2011a). "Kant's Teleology, the Concept of the Organism, and the Context of Contemporary Biology". In: Logical Analysis and History of Philosophy 14 (Final Causes and Philosophical Explanations). Ed. by Stephan Schmid and Dominik Perler, pp. 107–124. DOI: 10.1007/978-94-007-7140-6 4.
- (2011b). "Teleology and its Constitutive Role for Biology as the Science of Organized Systems in Nature". In: *Studies in History and Philosophy of Science Part C* 43.1, pp. 113–119. DOI: 10.1016/j.shpsc.2011.05.010.
- Tolley, Clinton (2012). "The Generality of Kant's Transcendental Logic". In: *Journal of the History of Philosophy* 50.3, pp. 417–446. DOI: 10.1353/hph.2012.0054.
- Tonelli, Giorgio (1954). "La Formazione Del Testo Della Kritik der Urteilskraft". In: Revue Internationale de Philosophie 8.4, pp. 423–448.
- Trendelenburg, Friedrich Adolf (1870). Logische Untersuchungen. 3rd edited edition. Vol. II. Leipzig: Hirzel.
- Turing, A. M. (1950). "Computing Machinery and Intelligence". In: *Mind* 59.236, pp. 433–460. DOI: 10.2307/2251299.
- Tuschling, Burkhard (1991). "The System of Transcendental Idealism: Questions Raised and Left Open in the Kritik der Urteilskraft". In: Southern Journal of Philosophy 30.1, pp. 109–127. DOI: 10.1111/j.2041-6962.1992.tb00660.x.
- Vlastos, Gregory (1969). "Reasons and Causes in the Phaedo". In: *Philosophical Review* 78.3, pp. 291–325.
- Watkins, Eric (2001). "Kant on Rational Cosmology". In: *Kant and the Sciences*. Ed. by Eric Watkins. Cambridge: Oxford University Press, pp. 70–89.
- (2014). "Nature in General as a System of Ends". In: *Kant's Theory of Biology*. Ed. by Eric Watkins and Ina Goy. Berlin: De Gruyter, pp. 117–130.
- (2009). "The Antinomy of Teleological judgement". In: *Kant Yearbook* 1.1, pp. 197–222. DOI: 10.1515/9783110196672.197.
- Watkins, Eric and Marcus Willaschek (2017). "Kant's Account of Cognition". In: *Journal of the History of Philosophy* 55.1, pp. 83–112. DOI: 10.1353/hph.2017.0003.

- Weizsäcker, Carl Friedrich von (1971). Die Einheit der Natur. München: Carl Hanser.
- Westphal, Kenneth R. (2005). "Kant, Wittgenstein, and Transcendental Chaos". In: *Philosophical Investigations* 28.4, pp. 303–323. DOI: 10.1111/j.1467-9205.2005.00261.x.
- Wieland, Wolfgang (2001). Urteil und Gefühl. Kants Theorie der Urteilskraft. Göttingen: Vandenhoeck & Ruprecht.
- Willaschek, Marcus (1998). "Phaenomena/Noumena und die Amphibolie der Reflexionsbegriffe". In: Kant: Kritik der reinen Vernunft. Ed. by Marcus Willaschek and Georg Mohr. Vol. Klassiker Auslegen. 17–18. Berlin: Akademie Verlag, pp. 323–351.
- Winegar, Reed (2017). "Kant on God's Intuitive Understanding: Interpreting CJ §76's Modal Claims". In: *Kantian Review* 22.2, pp. 305–329. DOI: 10.1017/s1369415417000061.
- Wolff, Michael (1995). Die Vollständigkeit der kantischen Urteilstafel. Mit einem Essay über Frege's Begriffsschrift. Philosophische Abhandlungen 63. Frankfurt am Main: Vittorio Klostermann.
- Wundt, Max (1924). Kant als Metaphysiker. Ein Beitrag zur Geschichte der deutschen Philosophie im 18. Jahrhundert. Stuttgart: Ferdinand Enke.
- Zammito, John H. (2006). "Teleology Then and Now: The Question of Kant's Relevance for Contemporary Controversies Over Function in Biology". In: *Studies in History and Philosophy of Science Part C* 37.4, pp. 748–770. DOI: 10.1016/j.shpsc. 2006.09.008.
- (1992). The Genesis of Kant's Critique of Judgment. Chicago: University of Chicago Press.
- (2003). "'This Inscrutable Principle of an Original Organization': Epigenesis and 'Looseness of Fit' in Kant's Philosophy of Science". In: Studies in History and Philosophy of Science Part A 34.1, pp. 73–109. DOI: 10.1016/S0039-3681(02)00092-4.
- Zuckert, Rachel (2007). Kant on Beauty and Biology. Cambridge: Cambridge University Press.



This study offers deep insight into one of the most compelling and fascinating texts in Kant's oeuvre. Firm knowledge of Kant's work, that of his predecessors as well as contemporary commentary flow into a reading of the Kritik der Urteilskraft which situates the different parts into an overarching project. According to the primary line of argumentation, the book centers around the contribution by the reflective power of judgement lead by the principle of purposiveness. The work primarily presents a new voice within the growing reception of Kant's third Critique.



