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## **Analogy, technical reason, and living beings: the role of analogy in representing Kant's concept of naturzweck**

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## Summary

This dissertation concerns the role of analogy in Kant's "Critique of the Teleological Power of Judgment", especially the role of analogy for the formation of the Kantian concept of a natural end (*Naturzweck*). The 'teleological power of judgment' refers to the presupposition of an internal purposiveness in nature that serves to guide our judgments and research into nature. A 'natural end' is a 'regulative concept' of the reflective power of judgment, that is, a heuristic device that enables us to make sense of the seemingly end-directed and self-organizing character of living beings and to orient our research into the organization of nature. In the second part of the *Kritik der Urteilskraft* (KU), Kant tries to distance himself from a purely mechanistic account of the organization of nature, and he develops a teleological view of living nature through his regulative concept of *Naturzweck*.

The concept of *Naturzweck* is, however, problematic since it presents serious difficulties for our understanding. This is because, as a 'regulative concept' or 'idea', it does not allow for a direct presentation in sensible intuition. In order to make this regulative concept intelligible to us, Kant appeals to analogy, as a kind of indirect presentation in intuition. In fact, Kant's description of the concept of *Naturzweck* appeals to three analogies: the analogy with our own causality in accordance with ends (*unserer Kausalität nach Zwecken*)<sup>252</sup>; the analogy with an artifact or work of art<sup>253</sup>; and the analogy with *life*, which is a concept that pertains to practical philosophy in Kant's view<sup>254</sup>. Nevertheless, after suggesting these analogies, Kant states that the concept of natural end is not analogous with any causality known to us<sup>255</sup>, including that pertaining to human artifacts and life. Even though these analogies shed some light on the concept of *Naturzweck*, they do not fully encompass the irreducible features that a living being seems to possess, namely, self-organization and end-directedness. While stating that the analogy with our "causality in accordance with ends" is "remote" (*entfernten*)<sup>256</sup>, he nevertheless insists on the comparison between these concepts.

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<sup>252</sup> KU, AA V, 375, lines 20-22.

<sup>253</sup> KU, AK. V, 374, lines 9-33.

<sup>254</sup> KU, AK. V, 374, lines 27-37.

<sup>255</sup> V, 375, lines 5-7.

<sup>256</sup> 375, line 20.

Kant's text is inconsistent and problematic: it uses and simultaneously rejects these analogies. Furthermore, he seems to (partially) embrace the analogy with our causality in accordance with ends, but with some reservations that he does not bother to clarify. Why does Kant not fully reject the (remote, according to him) analogy with our causality in accordance with ends when describing the concept of organized being judged as a *Naturzweck*? It is pretty clear that Kant holds onto the analogy with our causality in accordance with ends, but the question is: *To what extent* does he maintain this analogy? What is the role of analogical reflection in general and of this analogy in particular? Does the concept "causality in accordance with ends" encompass all human purposeful activity, including moral actions?

Our causality in accordance to ends can refer not only to the domain of morality, but also to the domain of technical reason. 'Technical reason' means our rational capacity to represent ends to ourselves (the ends of art and skill) and to find a way to accomplish them. Both activities are rational as well as purposive, and Kant does not make explicit in which of these two senses he is invoking this analogy. It is therefore essential to specify in which sense of practical reason Kant is using the term "causality in accordance with ends", since this will clarify not only the very concept of *Naturzweck*, but also the way in which we can make sense of nature's organization. Accordingly, one of the main philosophical questions that this dissertation tackles is: How can we construe the concept of our causality in accordance with ends in this analogy? Is Kant invoking both technical-practical reason and moral-practical reason or one or other of them?

Even though Kant does not directly refer to the sphere of moral action when invoking the analogy with our own causality in accordance with ends, several commentators maintain that in this context the concept of human causality (causality in accordance with ends) implies both technical and moral practical reason. Against this line of interpretation, I argue that the concept of our causality according to ends that is at stake in the context of the KU is a technical one, that is, a type of causality in human rational activity in the technical-practical sphere.

The philosophical literature on Kant has typically—and predominantly—conflated this analogy with the traditional analogy from design. On this reading, Kant is drawing an analogy between artifacts and living beings, not in order to prove God's existence, but in order to make sense of the seemingly end-directed character of nature's organization. These scholars construe the term "causality in accordance with ends" as

“rational design”, and the analogy would be as follows: between a living being (which seems to possess end-directedness) and a designed object (which is designed for a determinate end). This reading has been advanced by McFarland (1970), Zumbach (1984), McLaughlin (1990), Aquila (1991), Fricke (1990), Ginsborg (2001), Guyer (2001, 2006), Zuckert (2007), Lenoir (1982), Steigerwald (2006), and Van den Berg (2014, 2017), amongst others.

My position in this dissertation is that this is a misreading. Kant is very emphatic in stating that the analogy between artifacts and organic beings is more properly a disanalogy, and in the end he rules out the analogy with intelligent design<sup>257</sup>. My proposal is that the best way to construe this analogy is not by identifying it with the old argument from design, but rather with our own reason in its “technical use”<sup>258</sup>. That is to say, the analogy with our causality in accordance with ends does not establish a relation of identity between organisms and artifacts—as the secondary literature has predominantly stated—but between organisms and technical-practical reason itself.

Therefore, the main thesis of this dissertation is that Kant’s analogy between organisms and our causality in accordance with ends is best understood as an analogy between technical reason and living beings. Our technical reason is not only responsible for our capacity to create artifacts; it is also responsible for our capacity to represent ends to ourselves and to find a way—that is, creating a rule or precept—to accomplish them. This technical-rational capacity in us is, therefore, the source of the analogical concept of *Naturzweck*. This technical-rational capacity in us has end-directedness and self-determination, and we judge living beings as *Naturzwecke* because we seem to recognize in them some features that are similar to our technical reason, namely, purposiveness and self- organization.

This interpretation, furthermore, motivates another thesis that is at stake in my dissertation, which concerns the question about the very role of analogy in the “Critique of the Teleological Power of Judgment”. Kant, once again, is not very clear about the scope he wants to ascribe to analogy in general and to the analogy with our technical reason in particular. Yet, the usage of analogical reflection throughout the KU is much

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<sup>257</sup> V, 374, lines 9-33. Recently, Angela Breitenbach has pointed out the shortcomings of this dominant interpretation as well (2009b, 2014a).

<sup>258</sup> “Hence in teleology, [...], we speak quite rightly of the wisdom [...] of nature [...] such talk is only meant to designate a kind of causality in nature, in accordance with an analogy with our own causality in the technical use of reason” (V, 383).

more persistent than Kant himself would wish to admit. In this dissertation, I propose that our teleological judgments about nature are based on this analogy with our technical reason. As a consequence, the role of analogy is absolutely necessary, since it enables us to indirectly exhibit the analogical-reflective concept of *Naturzweck* (that is, it allows us to present this concept indirectly in intuition for its subsequent intelligibility). This is because it allows us to conceptualize something as organized and self-organizing, which is how we make sense of living beings qua “living”.

These theses make it imperative to investigate the concept of analogy itself. How does Kant understand the notion of analogy throughout his works and, particularly, in the third *Critique*? What type of analogy is at stake in Kant’s “Critique of the Teleological Power of Judgment”? And why should it be so necessary to clarify the kind of analogical procedure operating within the KU? Answering these questions allows us to arrive at a well-formed idea of how analogical reflection works as the key for understanding the procedure of the reflective power of judgment in general, and of our teleological judgments about nature’s organization in particular. Kant is emphatic in stressing the heuristic role of analogy for our empirical research. But I propose that analogy goes beyond this mere heuristic role, since it enables us to present indirectly the very concept of *Naturzweck*. That is to say, analogy is not only a heuristic device for investigating nature, but also the very condition for the possibility of the reflective concept of *Naturzweck*. We can gain intelligibility about the seemingly purposive and self-organizing character of living beings only by virtue of an analogy with our technical reason, which operates in a purposive and self-organized manner as well.

In order to tackle the philosophical problems just outlined, the dissertation is divided into five chapters. The first two chapters are mainly introductory, since they present the problems, arguments, and main philosophical concepts introduced by Kant in the KU and in the “Critique of the Teleological Power of Judgment”, respectively. Chapter 1 provides a general overview of the KU. Although it is an overview, this first chapter contains an interpretative proposal for a better understanding of the main problems introduced by Kant in the third *Critique*. This chapter is crucial for situating the main problem of this dissertation within the overarching project of the KU and critical philosophy in general, viewed as a system. Thus, this chapter introduces the philosophical concepts that are at stake in this Kantian text and it offers a plausible reconstruction of

the main arguments Kant elaborates in the two Introductions of the KU—which contain in a condensed (and at times obscure) way the whole content of the book.

Chapter 2, in turn, contains an overview of the entire “Critique of the Teleological Power of Judgment” section of KU. In this chapter I describe, explain and analyze Kant's Teleological Judgment and all those aspects that are necessary for reconstructing the main argument of this second section of the third *Critique*. Furthermore, this chapter offers a first reconstruction of the key concept of *Naturzweck*. However, this reconstruction is a “provisional” one, since it puts on hold the clarification of this concept through the analogies invoked by Kant. Accordingly, this reconstruction of the concept of *Naturzweck* functions more as a first approximation than an exhaustive and systematic analysis of it. The latter will take place in Chapter 4 and mostly in Chapter 5.

Chapter 3 offers a reconstruction of Kant's concept of analogy, especially in the critical period. Even though Kant remains somewhat ambivalent toward the notion of analogy, and even seems quite critical at times regarding its use for scientific inquiry, he invokes and uses this notion regularly throughout his works. Furthermore, analogy is a technical term in Kant's philosophy, with different meanings and uses. This chapter offers, first, a distinction between mathematical and philosophical analogies, which is the Kantian starting point for any reflection regarding the use of analogy in philosophy. Next, I provide further distinctions within philosophical analogies: namely, analogies of experience, analogy as a mode of inference in its logical function, and symbolic representation. Finally, the chapter concludes with an interpretation of the kind of analogical procedure operating in our teleological judgments about nature. This chapter, accordingly, offers a systematization of Kant's different conceptions of analogy in order to clarify what kind of analogical procedure is at stake in the “Critique of the Teleological Power of Judgment”. This is crucial for the dissertation, since it offers a plausible reading of the kind of analogical procedure operating in Kant's Teleological Judgment, especially for enabling us to present indirectly and make sense of the reflective concept of *Naturzweck*—which is something that is far from clear in the Kantian text.

Chapter 4 provides an analysis and interpretation of the role of two analogies used by Kant when he describes living beings judged as *Naturzwecke*: the disanalogy with artifacts and the partial analogy with life. In this chapter, I offer a detailed analysis of these two analogies, highlighting their respective contributions and limitations for understanding Kant's concept of natural end. In order to understand the aforementioned

reflective concept, even the analyses of the analogies dismissed by Kant are necessary, not only because they reveal how reflective judgment eminently operates by means of analogy, but also because they disclose some of Kant's novel contributions regarding natural teleology<sup>259</sup>.

In view of this, this chapter provides, first, an historical account of the argument from design in order to establish how Kant distances himself from this history and elaborates instead a critical evaluation of the (dis)analogy between organisms and artifacts. In this part of the chapter, I conduct an overview and discussion of how Kantian literature has construed this analogy with intelligent design (which has been predominantly—and wrongly—equated with the analogy with our causality in accordance with ends). Second, this chapter offers a reconstruction of Kant's conception of life, in order to show how the analogy between life and organisms sheds some light on the concept of *Naturzweck*. However, this analogy is nevertheless shown to be insufficient for accounting it.

Chapter 5 deals directly with the main thesis of this dissertation: the claim that the reflective power of judgment is essentially analogical in its procedure, and our teleological judgments about nature are, in fact, grounded on an original analogy with our causality in accordance with ends, understood as an analogy with our own technical reason. In order to address and justify this assertion, section 5.1 analyses the crucial role of analogy in the KU. While this role is often overlooked in Kantian literature—and, at times, by Kant himself—it is indispensable for forming the two main concepts of the KU, namely, the reflective principle of *Zweckmäßigkeit der Natur* (purposiveness of nature) and *Naturzweck*. Accordingly, this first section of the chapter tackles the place and role of analogy for our reflective power of judgment in general. Sections 5.2 and 5.3 focus on two fundamental questions: How can we properly construe the concept of our causality in accordance with ends? Is this analogy as “remote” (*entfernen*) as Kant states, and what is the indispensable role of this analogy for our teleological judgments? These sections are fundamental, since they offer a plausible interpretation of the best way to understand this obscure analogy between organized beings and our technical-practical reason.

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<sup>259</sup> Especially his critical view regarding the old argument from design and the persistent comparison between organisms and artifacts.



Section 5.4 turns to the role this analogy plays in biology. If we consider our technical-reason as the source from which we can analogically conceptualize a *Naturzweck*, we can also determine the boundaries of biological knowledge itself. For Kant, *Naturzweck* is the reflective concept that allows us to make sense of living beings as if they had end-directedness and self-organization. And this unavoidable teleological standpoint for judging living beings confronts biology with a serious dilemma in its aspiration to be deemed a proper science. This section tackles this dilemma and highlights the reception of Kant's theory of living beings for subsequent biological thinkers. At the end of this chapter, I offer a brief reflection concerning the role of this analogy for the understanding of our own reason.

Finally, in the Concluding Remarks I highlight the outcomes of this dissertation for Kant studies and for current biological thinking. Even if the temptation is to consider Kant's thinking totally obsolete, I maintain that this is not the case. His main thesis concerning the role of teleology for making sense of living beings is still in force: our very understanding of them is by means of the analogical concept of *Naturzweck*, which means to judge something as self-organized and end-directed. However, this analogical-teleological standpoint that we adopt in order to make intelligible the representation of living beings qua living to ourselves, has nothing to do with mechanistic explanations provided by biology or any science committed to purely causal research. As a consequence, the mechanistic-causal explanation and technical manipulation that biology is hoping to achieve in its scientific investigation is not hindered by our teleological way of making sense of nature's organization.