

Kant's Characterization of Natural Ends

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to appear in: *Kant Yearbook 2009*
doesn't exactly match the version to be published
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Abstract

What is it to judge something to be a natural end? And what objects may properly be judged natural ends? These questions pose a challenge, because the predicates “natural” and “end” seemingly can not be instantiated at the same time – at least given some Kantian assumptions. My paper defends the thesis that Kant’s “Critique of Teleological Judgment” (CTJ), nevertheless, provides a sensible account of judging something a natural end. On the account, a person judges an object *O* a natural end, if she thinks that the parts of *O* cause *O* and if she is committed to approach *O* in a top-down manner, as if the parts were produced in view of the whole. The account is non-realist, because it involves a commitment. With the account comes a characterization that provides necessary and sufficient conditions on objects that may properly be judged natural ends. My paper reconstructs the argument in CTJ, §§64-65 where the account and the characterization are derived.

1. Introduction

In his “Critique of the Teleological Power of Judgment” (CTJ), Kant deals with teleological judgments. Teleological judgments may be identified via particular teleological terms that appear in natural linguistic expressions of the judgments. Such teleological terms include “purpose/end”¹, “purposive” and “for the sake of”. Kant’s aim in the CTJ is to analyze teleological judgments, to make a case for them, and to sort out a confusion that Kant thinks accompanies teleological judgments.

Kant’s focus is mostly on teleological judgments that concern *products of nature* or *natural objects*, for short. This is so, because Kant diagnoses that teleological judgments are made in the natural sciences, which deal with natural objects. On Kant’s view, it is even necessary to employ teleological notions for investigating certain natural objects (§65/375-6/247, e.g.).²

¹ In this paper I will take “end” and “purpose” to be synonymous. Following the Cambridge edition, I will stick to “end”.

² Page references are to the sections in Kant’s third Critique, the edition of the Prussian Academy, vol. V and the Cambridge edition (Kant 2000), respectively. Page references to Kant’s first Critique mention the page in the edition

In Kant's discussion, the notion of *judging something a natural end* and the notion of a *natural end* play an important role. In order to understand the importance of these notions, we may say the following: Whenever we make a teleological judgment regarding what we judge to be natural, then we implicitly judge an object to be a natural end.

However, to judge something a natural end does not quite seem to make sense, at least if some Kantian assumptions are taken for granted. For, if some thing is a natural *end*, it seemingly is the result of intentional agency. But a natural end is also supposed to be *natural*, i.e. a product of nature (§64/370/242), and a product of nature has its origin in nature, which does not, for Kant, include intentional agency. To judge something a natural end thus seemingly amounts to affirming two inconsistent propositions. Kant himself notices that an air of contradiction attaches to the notion of a natural end (§64/370/242).

Ginsborg (2001, 2006) has pointed out this problem with great force. She writes (Ginsborg 2006, 457):

“We count something as an end if we regard it as produced by the causality of a concept, which implies that it was produced as a result of design. But something counts as natural, on the face of it, precisely to the extent that it is not the product of design, and hence, it would seem, not an end. One of the most important philosophical challenges for any sympathetic interpretation of Kant's views on organisms is to explain how this apparent contradiction is to be reconciled.”

It is my thesis in this paper that Kant offers a solution to the problem that Ginsborg points out. Kant derives the solution in what I take to be a central part of the Analytic of the CTJ, viz. in §§64-65.³ On the face of it, these sections are concerned with conditions on objects that may be qualified as natural ends – in Kant's own words, he is concerned with the character of natural ends (§64/369/242 and §65/372/244). In slightly more appropriate terms (see Sec. 2 below for details) we may say, Kant achieves two separate, but related tasks: 1. He puts forward an *account of judging something a natural end*. 2. He provides a *characterization of the objects that may properly be called natural ends*.

In order to argue for my claims, I will offer a close reading and a sympathetic reconstruction of the argument in §§64-65. I am speaking of a reconstruction, because I will dismiss some details of Kant's arguments; also, my reconstruction uses a few terms that are not borrowed from Kant. Still, the focus is on Kant's views. Note also that I do not want to commit myself to Kant's understanding of natural ends or of the related judgments.

As Ginsborg (2001, 232) points out, the problem has not much been considered in the literature. Ginsborg herself offers a solution on behalf of Kant. According to it (see particularly her 1997 and 2001, 248-253), to judge some object O a natural end is to judge it to be natural, but at the same time to judge it to be subject to internal standards of evaluation. That does not seem inconsistent, as we do in fact call natural products unhealthy or malfunctioning. But Ginsborg's solution does not rest on a reconstruction of what I take to be the most relevant passage. Rather, in her own words, it is “pieced together” from the whole CTJ (Ginsborg 2006, 464). Thus, although I find Ginsborg's solution very interesting, I do not think that it is Kant's solution. Apart from Ginsborg's work, McLaughlin (1990) and Zuckert (2007) will be important for my paper.

My study is obviously limited in some ways. I concentrate on Kant's development of the very

of the Prussian Academy, vol. III or IV and in the Cambridge edition.

³ Cf. McLaughlin (1990), p. 47 who calls §65 “the central section of the Analytic”.

notion of judging something a natural end and his characterization of natural ends. The program of Kant's third Critique, the Dialectic in the CTJ and teleology in Kant's philosophical system are not my topic.⁴ Given the importance of the notion of a natural end and given the difficulties of the text in §§64-65, my focus seems legitimate.

My argument proceeds in the following steps. In Sec. 2, I will briefly examine Kant's approach to teleology. For getting clear on Kant's argument, it is useful to comment on his general notion of an end (Sec. 3). In Section 4, I will give an overview over the structure of Kant's argument in §§64-65. My reconstruction and discussion of Kant's main argument can be found in Section 5. I provide a few discussion points in Sec. 6.

2. Kant's approach to teleology

Kant approaches the topic of teleology in terms of the teleological power of judgment or teleological judgment. His starting points are teleological judgments rather than purposes or ends themselves. His approach is cautious, for it does not presuppose a realist construal of the judgments under scrutiny. *Realists* take judgments to the effect that something is a natural end as assertions of matters of fact or as *factual*, for short, just as the surface structure of related linguistic statements – “X is a natural end” – suggests. They think that such assertions can hold true in a mind-independent way and do sometimes do so. Kant's approach, instead, leaves the possibility that the judgments may involve subjective components such as feelings or commitments.

But Kant's approach comes also with a drawback in that it makes things very complicated to put. Instead of saying that “natural end” means this or that, e.g., Kant has to say that to judge something a natural end amounts to this or that. As I will sometimes say, the central notions such as “end” appear in *judgment brackets*.

Fortunately, in this study, judgment brackets can often be dropped – and this is also what Kant does. Judgment brackets can be dropped, if we are dealing with judgments that we know allow a realist construal. The reason is this: Assume, we are to explain what it is to judge something F, where “F” stands for a linguistic expression. Suppose, furthermore, that the judgment is factual and thus intended as assertion. Now we know quite generally what it is to *assert* that something obeys a predicate. Therefore, in order to fully understand what judging something F is, we need only understand the meaning of “F”. We only need to carry out a conceptual analysis of F; we may reason like “to be F means to have G”; and this amounts to dropping judgment brackets. Following Kant, I will often do this, unless the brackets are crucial.

Let me now turn to what Kant thinks is the central teleological judgment – the judgment to the effect that something is a natural end. What is it to judge something a natural end? Well, the *obvious answer* is: to judge it a product of nature, or natural; and to judge it an end (for the purposes of this paper, an object counts as natural if and only if it is a product of nature). Kant supports the obvious answer – he equates judging something a natural end with “to judge something that one cognizes [and thus judges] as a product of nature at the same time an end”

⁴ See Düsing (1986) for a study on teleology and Kant's notion of a world; McLaughlin (1990) for Kant's CTJ and biology; and Zuckert (2007) for a recent interpretation of the whole third Critique. Guyer (2003) provides a collection of critical essays on Kant's third Critique. Guyer (2001) traces the further development of Kant's thoughts on natural ends and teleology in the *Opus postumum*.

(§64/370/242). In fact, I think, any account of the related judgments must develop the obvious answer.

But the obvious answer does not suffice, because it does not specify how both judgments – the judgments that something is an end and that it is natural – are to be thought of. The easiest specification in this respect is to take both judgments as factual. This, then, is the *realist suggestion*: To judge something a natural end is to *assert* that it is an end and to *assert* that it is natural. “Natural end” would then function as a one-place predicate, it would pick a class of objects of which the predicate holds true, and that class of objects may be *characterized* by necessary and sufficient conditions – by conditions, maybe, that bring out more clearly what kinds of things qualify as natural ends.

But, of course, the realist suggestion does not work, because, under some assumptions, to assert that something is natural and to assert that it is an end is to affirm propositions that contradict each other. That is the problem pointed out by Ginsborg.

But at this point the cautious approach that starts with judgments may pay off, because we can drop realism. For instance, one may suggest that to judge something a natural end does not mean to *assert* that something is an end. Rather, maybe, to judge object O a natural end is to assert it to be natural and to merely *regard* it as end (Ginsborg 2001, 236 and Ginsborg 2006, 459). But, as Ginsborg points out, this move does not help, because to regard some O that is asserted to be natural, as end seems to commit one to *regard* two propositions as true that contradict each other – viz. the proposition that something is natural and the proposition that it is an end – and this does not make sense, again (for details see *ibid.*).

An alternative approach suggests that judging something a natural end amounts to assert it to be natural and to assert it to be *very much like an end* (Ginsborg 2001, 237). But, as Ginsborg rightly emphasizes, this account does not solve the problem, either, unless the respect is specified in which the object that is judged a natural end is very similar to an end.

It therefore seems that we do not make any progress unless we think more about the notion of an end. I will therefore turn to Kant’s notion of an end. Note, anyway, that even on a non-realist account of judging something a natural end, there remains a task of *characterizing natural ends*. This time, the characterization will not pick the objects that are really natural ends, but rather the objects that may properly be judged natural ends – for not every object will properly be judged a natural end. Necessary and sufficient conditions should be given – conditions, maybe, that bring out more clearly what real-world objects may properly be judged natural ends. Since there is still the task of characterization even on a non-realist view, there will be much talk of objects as natural ends in Kant and in this paper.

3. Kant’s notion of an end

Kant takes “is an end/is a purpose” (“ist ein Zweck”) to denote a one-place predicate. An example of how Kant conceives of this predicate is this: If X is a thing that an agent has intentionally produced, then X may be called an end.⁵ For the purposes of this section, judgments to the effect that something is an end can be taken as factual; we will therefore consistently drop judgment brackets.

Kant’s first definition of end/purpose in the Critique of the Aesthetic Power of Judgment

⁵ See McLaughlin (1990), 38–39 for a useful discussion of Kant’s notion of end/purpose.

(CAJ) reads:

“an end is the object of a concept [i.e. an object that falls under a concept] insofar as the latter [the concept] is regarded as the cause of the former [the object] (the real ground of its possibility)” (§10/220/105).⁶

According to the definition, O is an end if and only if the concept under which O falls, call that C(O), is the cause of O. If O is an end, its origination or its persistence and stability in time may thus be visualized by the following diagram, where the dashed arrow depicts causation.⁷

$$C(O) \text{ --- } > O$$

Diagram 1: Kant’s first definition of something being an end in §10.

But very shortly after the first definition quoted above, Kant suggests that C(O) is not the cause of O, but rather the “determining ground of its cause” (§10/220/105). Later, in the CTJ, concerning ends, he speaks of causes

“whose productive capacity is determined by concepts” (§64/369-70/242).

Elsewhere (§65/373/245 and, maybe, §63/366–7/239), Kant seems to assume that, in ends, the concept determines the *causality* of the cause.

All this suggests that Diagram 1 only captures what may be called Kant’s first shot in defining ends. If we take into account the other quotations, we end up with a more *elaborate definition*. On that definition, O is an end, if the concept C(O) determines the cause of O, and the determination concerns O’s cause only in so far as the cause causes O. That can be illustrated with the following diagram, where the arrow with the solid line denotes causation and the double arrow denotes the relation “being the determining ground of”, or determination, for short:

$$\begin{array}{c} \text{cause} \rightarrow O \\ \uparrow \\ C(O) \end{array}$$

Diagram 2: Kant’s elaborate definition of something (O) being an end.

In order to illustrate how the elaborate definition and Diagram 2 work, we may consider the following example: If Peter carves a flute, then his will (or his moving the arms in particular ways) causes the flute (O), but his will (his moving the arms) is determined by Peter’s conception of the flute (C(O)).

Note that, in both definitions, the concept is a concrete representation of an object in

⁶ In this passage, Kant is not quite consistent with his use of judgment brackets. The definiens has brackets, the definiendum does not, which does not quite make sense, literally taken.

⁷ At first sight, the statement “A is the cause of object O” will probably be taken to mean that A accounts for O’s origin. However, there is also the possibility that A accounts for the persistence and stability of O in time. A few examples of Kant point into the latter direction (§64/371-372/243-244), and it may be argued that Kant’s account of natural ends is more convincing, if it concerns the stability of an object rather than its origin.

someone's mind, not something like the general concept of a chair, say. That this is Kant's understanding is clear from the fact that Kant speaks of a will very shortly after his definition of ends in §10 (220/105).

An important question is what the determination relation in the elaborate definition is supposed to be. Kant does not explain that relation here, and, therefore, we just have to take Kant's words and work with the everyday understanding of "determination".

The elaborate definition is compatible with Kant's first shot, if both definitions use "causation" in slightly different senses. This has already been indicated by using different arrow types in the diagrams. In the first shot (Diagram 1), "causation" is to be understood in a very broad sense. On this understanding, a cause of O is something that answers why-questions regarding O (cf. Aristotle's notion of a cause in *Metaphysics* I.1, 1.980a-b). In the second definition (Diagram 2), on the contrary, Kant refers to efficient causes and the notion of causality that figures in modern science. That, I take it, is the notion of causality that Kant has dealt with in the first Critique. My suggestion to disambiguate Kant's use of "cause" as suggested is not merely ad hoc, because, in the third Critique, there are places in which Kant clearly seems to use "cause" in the narrow sense (§63/366-7/239, e.g.) – and there are other places in which a broader understanding seems more fitting (§61/359/233).

Diagram 2 may also be used for defining the notion "for the sake of". That notion will later be used by Kant. In the diagram, we can say that the cause exists for the sake of O. That is more vivid from the following example (cf. §65/372/244): Suppose that Daisy builds a house for the sake of money. If Daisy succeeds, the house in a sense causes the money (the rents). Additionally, the house is determined by Daisy's conception of the money. That yields Diagram 2 with the house being the cause. Kant's discussion of the "connection of final causes" suggests that he understands "for the sake of" in this way (*ibid.*).⁸

In order to complete the discussion of Kant's notion of an end, I have to comment on yet another general trait in Kant's discussion of ends. In Kant's first definition of an end in §10 and the related comments, there is much talk about necessary conditions. For instance, immediately after his definition of an end, Kant says:

"Thus where not merely the cognition of an object but the object itself (its form or its existence) as an effect is thought of as possible only through a concept of the latter, there one thinks of an end" (§10/220/105).

Here, the "where"-clause obviously contains a strengthening of the definiens in Kant's definition of an end, contained in judgments brackets – the concept C(O) is supposed to be necessary in the causation of O. But Kant then goes on to say that, in this case, O is considered an end. This is not strictly inconsistent with the former definition, but misleading because the reader is very likely to read the "when" as a "if and only if".

Let me therefore distinguish two propositions.

(E) O is an end (cf. §64/370-1/243).

(NE) O is necessarily an end – is possible only as an end.

⁸ Admittedly, there is a problem with my reading of "for the sake of" on Kant's behalf. At some point, Kant (§65/373–4/245-6) stresses the following: 1. The parts of a watch exist for the sake of the other parts. 2. That does not yet imply that the parts cause the parts. Under my reading of "for the sake of", both points seem wrong. But I do not see any other way how to define "for the sake of", given Kant's notion of an end. Independently from Kant's notions, I would deny that the parts of a watch exist for the sake of the other parts. They only exist and work for the sake of the whole. If the first point is wrong, then Kant would have no reason to stress his second point, either.

E and NE are clearly different – even if O did in fact originate as determined by a concept, it may have originated in a different way without any determination by a concept. Put in different words: That a particular type of cause (one that is determined by concepts) was sufficient for producing O does not imply that that cause was also necessary for O.

By applying judgment brackets to E and EP, we get two kinds of judgments:

(JE) judging O an end (cf. §64/370/242)

(JNE) judging O only to be possible only as an end (cf. §64/370/242).⁹

JNE is not to be confused with

(NJE) It is necessary to judge O an end.

The necessity in NJE is certainly not a moral one. Rather, the idea is that, in certain types of inquiry, O needs to be judged an end (cf. §61/359/233).

The problem, now, is that Kant sometimes slips between the different types of propositions without signaling any difference. The problem that I want to stress here is not about judgment brackets, but rather that Kant switches between notions with and without necessity (the title, the first sentence, and other parts from §64 provide another example).

The problem may to a large extent be solved by strengthening the definition of an end. To judge O an end may be taken to judge that O's cause *must have been determined* by a concept. Under this definition and another plausible assumption about necessities, E would be equivalent to NE.¹⁰

But I reject this solution. It is too far from ordinary language. Also, under the solution, many of Kant's formulations would be unnecessarily redundant. For then "to see that a thing is possible only as an end" (§64/369/242) could simply be replaced by "to see a thing as an end".

But how, then, can we explain why Kant slips between expressions that claim a necessity and others that do not? And how can we simplify things?

My suggestion is that Kant focuses on cases in which somebody judges that some O is possible only as an end (JNE), and that Kant does so for good reasons. I then suggest to follow Kant and to assume that the analysis is really about JNE judgments.

A first reason why Kant focuses on JNE judgments is this: Kant's main interest seems to be a defense of teleological thinking in the natural sciences. The strongest possible defense that one can put forward in this respect is to say: In certain kinds of inquiry, presumably in inquiries about the origin or persistence of some object, we *have* to judge something an end (NJE; see §65/376/247, e.g.; cf. Ginsborg 2001, 233). But why may we *have* to judge something an end? Well, we have to judge so, if there are compelling grounds. And there are certainly compelling grounds for this, if we justifiably judge that something is possible only as an end (JNE). That suggests that our focus should be on cases in which a JNE judgment is made.

A second, but related reason is that there is some pressure to get rid of teleological notions, if possible. We would have a unique account of the origin of objects in terms of efficient causes, if we could dispense with teleological notions (cf. Zuckert 2007, 89). This suggests restricting teleological judgments to cases in which something is regarded to be possible only as an end (JNE) – and this properly so. These cases will be at the focus of the following analysis.

⁹ Sometimes we will also consider judgments that something is possible only as *natural* end. What these judgments mean is that a product of nature is possible only as an end – the possibility only refers to that thing being an end.

¹⁰ The additional assumption is this: It is necessary that q, if and only if it is necessary that it is necessary that q, where q stands for an arbitrary proposition.

4. The path of Kant's argument

Kant's discussion of natural ends and the related judgments starts in §64. In the few sections before, he has mainly sorted out a few senses of "end" that do not interest him in his analysis. He has ended up with what he calls internal material objective ends or purposivity (see §63/366-367/239).

§64 is titled "On the special character of things as natural ends" (369/242). Kant starts with the notion of judging an O "possible only as an end" (*ibid.*, cf. NE). He does so, presumably, because he will later focus on the more special case in which some *product of nature* is judged possible only in that way. Kant presents what he takes to be a necessary condition on judging O possible only as an end. Roughly, the condition has it that O is judged not to be possible only on the basis of the laws of nature (§64/369-370/242).

Kant goes on to consider an example in which we judge an O possible only as end (§64/370/242). But in the example, Kant notes, O is an artifact and not a product of nature (*ibid.*). In passing, he makes clear what judging O an end amounts to for him: judging it a product of nature and judging it an end (*ibid.*). I have called this the obvious answer. Everything that follows is derived from that answer.

As Kant points out further, there is a threat that "natural end" is a contradiction in terms (*ibid.*) and that the related judgments don't make sense. What Kant apparently offers as a counter is a *characterization* of natural ends – a statement of necessary and sufficient conditions on everything that may properly be judged natural end. The characterization is supposed to pick a class of well-known real-world objects in order to avoid the threat.

Kant starts with providing an *initial and preliminary characterization* of natural ends:

"I would say provisionally that a thing exists as a natural end **if it is cause and effect of itself** (although in a twofold sense)" (§64/370/243).

This characterization raises a number of questions, one of them being: How can something be the cause of itself? Another question is how the initial characterization is related to the notion of an end. Kant very sketchily indicates an answer: The pattern of causes suggested in the preliminary characterization is as alien to our general concept of nature as are ends (§64/371/243).

Kant goes on to illustrate the initial characterization in terms of an example (§64/371–2/243–4). A tree may be thought of as its own cause insofar as: i. it originates as a species from a tree of the same species; ii. the tree grows and transforms alien material; iii. the different parts of the tree contribute to the conservation of other parts, and vice versa. The examples at least indicate that there are real-world instances of the initial characterization. Thus, if the initial characterization applies to objects that may be judged natural ends, the threat is avoided. But so far, the initial characterization has only been stated as a thesis, and we do not yet know whether the initial characterization really applies to objects that may properly be judged natural ends.

This issue is taken up in §65, where Kant elaborates on his characterization of natural ends. He starts with highlighting the "improper and indeterminate" character of the preliminary characterization of natural ends in terms of self-causation; a "derivation from a determinate concept" is promised (§65/372/244).

But the derivation does not immediately follow. Rather, Kant remarks on causality quite

generally (§65/372–3/244). Surprisingly, Kant’s remark does not shape the next two paragraphs at all. Rather, I think, the remark serves the following functions: 1. It is supposed to address some worries that concern the idea of self-causation, which prominently figures in the preliminary characterization of natural ends.¹¹ 2. It prepares Kant’s final characterization of natural ends by introducing the notion of X being the final end of Y.¹²

After the remark, Kant derives *two conditions* on objects that are properly judged natural ends; they form the core of the desired, more determinate characterization of natural ends (§65/373/244–5). In order to derive the conditions, Kant assumes the obvious answer and that the object under consideration is regarded as a whole. I call the derived conditions the *holism condition* (HC) and the *causal support condition* (CSC), respectively:

(HC) in a natural end, the “parts [...] are possible only through their relation to the whole” (§65/244–5/373).

(CSC) the parts of the whole are causally responsible for each other and the whole.

I take HC to imply that *each* part has the desired property.

Taken together, these conditions yield the desired *final characterization* of natural ends (§65/373–4/245). The way in which the parts in a natural end are related leads Kant to claiming that the parts are organs and that a natural end is necessarily

“an **organized and self-organizing** being” (§65/374/245).

This formulation is partly taken up by the statement that forms the title of §65:

“Things, as natural ends, are organized beings” (§65/372/244).

Here “organized being” is presumably a shorthand term for “organized and self-organizing being”.¹³

Subsequently, Kant illustrates his final characterization of natural ends by discussing a thing that does not yet qualify as a natural end, viz. a watch (§65/374/246). The problem with the watch is that it lacks “**formative power**”, says Kant (*ibid.*).

The remainder of §65 focuses on the status of judgments to the effect that something is a natural end. Kant compares such judgments to judgments that some thing is an artifact and finds that both judgments are dissimilar (§65/374–5/246–7). He also says that the notion of a natural end is a regulative rather than a constitutive concept (§65/375/247).

The final paragraph of §65 (§65/375–6/247) introduces the topic of §66. The notion of natural ends, says Kant, licenses a particular way of thinking, viz. teleological thinking. This

¹¹ To be more precise, the following worry is addressed: If a thing causes itself, then it appears twice in one causal chain. Kant’s remark shows how this double appearance is in some sense possible.

¹² McLaughlin (1990), 47 takes this passage to be the derivation that Kant has promised for the characterization of natural ends. But this cannot be so, since natural ends are never explicitly mentioned in this passage. McLaughlin himself comes to find the passage unclear and not quite deriving what he thinks the passage should derive (48).

¹³ Where, on my reading, Kant derives two conditions, which are then summarized, McLaughlin (1990), 49 thinks that Kant provides three “determinations” of natural ends. He goes on to claim that the three determinations parallel the three illustrations that follow Kant’s preliminary characterization of natural ends and in which a tree is considered. I think, my reading of Kant’s is superior, since (1) Kant explicitly numbers the condition by “first” and “second” (§65/373/244–5), but never speaks of “third”. (2) After having derived both conditions, Kant begins with a sentence that contains a “therefore” (*ibid.*), which fact suggests that Kant takes stock. (3) What Kant says after the two conditions does not go much beyond what has already been asserted. (4) I do not see a close parallel to the three illustrations with the tree. For instance, I fail to see how the reproduction example is taken up (similarly Zuckert 2007, 99).

thinking is enshrined in a principle that we need for judging natural ends:

“An organized product of nature is that in which everything is an end and reciprocally a means as well.” (§66/376/247–8).

So much for an overview over Kant’s path of argument. Without going into the details of the argument, we note that its structure raises a few issues.

First, if the characterization of natural ends is to bring out that there are objects that are properly judged natural ends, then the preliminary characterization has to be related to the final characterization. But Kant does not do this. I will take up this issue later.

Second, Kant derives the final characterization by starting with a judgment of the type JNE. Now it is very easy to derive from that *necessary* conditions on objects to be judged natural ends. But that does not address the threat of inconsistency, because one may derive anything from inconsistent propositions. What needs to be shown is that the conditions are also jointly sufficient. I will have to check this later (Subsec. 5.2).

Third, from my overview, one might have inferred that HC and CSC are factual. But if this is so, then we face a puzzle: Kant starts with a judgment that O is natural and a judgment that O is an end. If the final results of the derivation, HC and CSC, are factual, then Kant, in his derivation, must have consistently assumed that both judgments are factual. But we know that, taken as factual, the judgments from which Kant starts jointly imply a contradiction. So why did Kant not end up with that contradiction? The answer can only be that Kant, in his derivation, gives up factuality at some point. I suggest that Kant proceeds as follows: He tries to take the judgments from the obvious answer as factual, as long as this is possible. But at some point, factuality must be given up, and Kant does so – a step that is pivotal for what I call the account of teleological judgments. As a consequence, HC and CSC cannot be purely factual. That is another issue that I need take up (Subsec. 5.3).

In the following I will discuss and reconstruct the crucial parts of the argument. I start with Kant’s derivation of the final characterization (Subsec. 5.1-5.4) and then show that the preliminary characterization matches the final one.

Before I begin with a detailed discussion of Kant’s main argument, let me briefly comment on its status. The sections under investigation are part of the Analytic and therefore only deal with conceptual questions. The task is to make explicit what it is to judge something a natural end. I take it that Kant’s aim is not a strict proof that there are natural ends.¹⁴ But on my view, Kant’s undertaking is interesting enough. For, first, Kant’s characterization of objects that may properly be judged natural ends is of great help to find such objects, and Kant provides examples (although there is no strict proof that the examples match the conditions). Second, the fact that Kant’s characterization is derived in an argument ensures that the characterization is complete in that it picks every object that is properly judged a natural end.

5. Kant’s argument in §65

Regarding the details of Kant’s argument, I can immediately start with the two conditions on natural ends. As suggested before, let us assume that O is properly judged possible only as end and at the same time judged a product of nature.

¹⁴ Zuckert (2007), on the contrary, provides a reading of the CTJ under which Kant does have an argument why we need to assume natural ends (Ch. 3).

5.1 The holism condition

The first condition is derived by the following argument:

“[P1] Now for a thing as a natural end it is requisite, **first**, that its parts (as far as their existence and their form are concerned) are possible only through their relation to the whole. [P2] For the thing itself is an end, and is thus comprehended under a concept or an idea that must determine *a priori* everything that is to be contained in it. [P3] But insofar as a thing is conceived of as possible only in this way it is merely a work of art, i.e., the product of a rational cause distinct from the matter (the parts), the causality of which (in the allocation and combination of the parts) is determined through its idea of a whole that is thereby possible (thus not through nature outside of it).” (§65/373/244–5, translation changed).

In this passage, Kant obviously derives the holism condition; it is expressed in P1. In what follows, I take it that Kant, by talking about ideas, means concepts.

Unfortunately, there is a problem with the passage. The passage starts with a JNE judgment, from which certain implications are derived. But in P3, Kant apparently infers that the natural end is thought to be an artifact, which is precisely what would lead into the contradiction that is to be avoided.

What might be called the *standard reconstruction* therefore reads P3 slightly differently:

“But insofar as a thing is conceived of as possible only in this way *and nothing more is said/ no additional condition holds true*, it is merely a work of art, i.e. [...]” (after §65/373/245).

Thus, under the standard reconstruction, P3 indicates that a second condition on the notion of a natural end is needed, and that second condition is indeed immediately forthcoming in Kant’s text – it is the causal support condition. Read in this way, P3 it is not part of the argument, but rather provides a bridge to the derivation of the causal support condition. Accordingly, under the standard reconstruction, P1 contains a thesis that is proven in P2. Remarkably, P2 does not make any reference to nature. As a consequence, P1 would only flow from the notion of an end (cf. Ginsborg 2006, 457).

But there are problems with the standard reconstruction. First, P1 seems wrong, if it refers to any end. Consider Kant’s example of the hexagon in the sand. The hexagon consists of lines as parts. But a single line in the sand seems perfectly possible (Zuckert 2007, 113 agrees). Second, if P2 is the only argument, then it falls short of establishing P1. Even if the concept of the whole fully determines every part of the thing – even if this must be so for the thing to be possible, it does not follow that some parts may not have originated independently from the whole.

But the problems may be overcome by a different reading of the passage. A first thing to notice is that Kant unnecessarily slips from an NE-like thesis to an E-like thesis between P1 and P2. P1 and P2 may therefore be amended in the following way:

“[P1] Now for a thing as a natural end it is requisite, **first**, that its parts (as far as their existence and their form are concerned) are possible only through their relation to the whole. [P2] For the thing itself is possible only as an end, and is thus comprehended as possible only under a concept or an idea that must determine *a priori* everything that is to be contained in it.” (after §65/373/244–5).

For P3, I suggest the following reading:

“But insofar as a thing [a whole consisting of parts] is conceived of as possible only in this

way *and P1 is false*, it is merely a work of art, i.e., the product of a rational cause distinct from the matter (the parts), the causality of which (in the allocating and combination of the parts) is determined through its idea of a whole that is thereby possible (thus not through nature outside of it).” (after §65/373/245).

The idea is thus that the argument proceeds in the manner of an indirect proof: Kant imagines that P1 is false and derives a contradiction. Under the new reading, the Kantian argument may also be presented as follows (I will consistently drop judgment brackets): Consider a thing O that is possible only as natural end. Consequently, O is possible only in virtue of a cause that, in turn, is determined by C(O). It follows that O is possible only in virtue of C(O). The last statement leaves open how exactly O is possible only in virtue of (O), but this suffices for what follows. Assume now that O is a whole that consists of parts. It follows that O as a whole consisting of parts is possible only in virtue of C(O). One way in which O as a whole may only be possible in virtue of C(O) is this: The parts of O must have been put together in a way that is determined by C(O). But if this is the only way how C(O) determines the origin of O, it is implied that O was put together by someone who had C(O) in mind – by an artisan, as it were. But then O would be an artifact. But O is not an artifact, because it is a product of nature. How, then, can O only be possible in virtue of C(O)? Well, the only alternative left seems to be that also the parts (some of the parts) each are possible only in view of that concept. And this implies that the parts are in some way possible only in view of the whole (or “through their relation to the whole”, as Kant puts it, *ibid.*), since the concept C(O) is the concept of the whole. We have thus arrived at HC.

The new reading solves the problems of the first reading. Yet, I do not want to say that Kant’s argument is now entirely sound (see Sec. 6).

5.2 The causal support condition

Let me now discuss the second condition on natural ends, viz. CSC. According to the condition, roughly, the parts cause each other. Here is Kant’s argument for CSC (§65/373/ 245):

“But if a thing, as a natural product, is nevertheless to contain in itself and its internal possibility a relation to ends, i.e., is to be possible only as a natural end and without the causality of the concepts of a rational being outside of it, then it is required, **second**, that its parts be combined into a whole by being reciprocally the cause and effect of their form. For in this way alone is it possible in turn for the idea [concept] of the whole conversely (reciprocally) to determine the form and combination of all the parts [...]”

Now in what seems to be the summary of his argument, viz. in the next paragraph (*ibid.*), Kant goes slightly beyond the CSC. He does not only say that, in a natural end, the parts cause each other, but also that the parts cause the *composition* of the whole and the *whole* itself. The first thing to be sorted out is therefore how we may think of the causation of a whole that is composed of parts. For this, we may distinguish between three ways in which something, A, may have causal force on a whole:

- C1 A causes the parts.
- C2 A causes the composition of the parts in the whole.
- C3 A causes the whole.

I suggest that C3 is equivalent to the conjunction of C1 and C2. Kant’s claims may be summarized in that C1, C2 and C3 are true for A being the parts of a natural end. CSC is Kant’s

C-1 type claim with A being the parts of a natural end. Because of the equivalence that I have noted, it is sufficient for Kant to argue for his C3-type claim.

If we extend Kant’s argument to a C3-type claim, it goes as follows: Consider a thing O that is possible only as natural end. Assume, once more, that O is composed of parts. Consider now the cause of O. Following the argument for HC, the parts are in some way determined by C(O) – in fact, they are possible only in view of C(O). Thus, if the parts are the cause of O, then O’s cause is indeed determined by C(O). Now, as far as no other cause seems available that is determined by C(O), we can safely conclude that the parts are in fact the cause of O.¹⁵

Unfortunately, there is a little loophole in the argument. The cogency of the argument turns on the assumption that the parts are the only candidates that may cause O and that are at the same time determined by C(O). But Kant never argues for this assumption. Fortunately, the assumption does not strike one as particularly implausible. Maybe it can be inferred from the argument for HC.

We have now reviewed the arguments for both conditions. So far, everything seemed to be purely factual talk. Let us therefore for the meanwhile assume that we have a realist account and that we can present Kant’s result as a plain characterization what natural ends are. The characterization is visualized in Diagram 3.

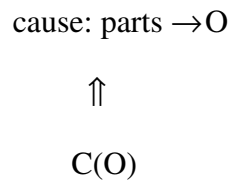


Diagram 3: Kant’s characterization of natural ends

Here the causal arrow from the parts to O comes from CSC. The other arrow from C(O) to the parts comes from HC – the parts are possible only in view of the concept C(O) and must therefore be determined by C(O). Kant’s formulation of HC might suggest that O rather than C(O) is at the bottom of the double arrow – in Kant’s words, the parts are possible only in view of the whole. But what is shown in the proof of HC is more – really, the parts are possible only in view of C(O). Furthermore, if there was no C(O) in the diagram, then we would immediately get a problem.

As argued in Sec. 4, a crucial issue is whether the conditions HC and CSC or Diagram 3 are sufficient for natural ends. For, deriving necessary conditions from the obvious answer does not really address worries regarding consistency. We need sufficient conditions that may be fulfilled by real-world objects, and the question is whether Diagram 3 is sufficient for natural ends – for objects that are properly judged natural and that are properly judged ends, as the obvious answer suggests.

Regarding ends, Diagram 3 seemingly literally instantiates the pattern from Diagram 2. It

¹⁵ In his argument, Kant says that the parts are mutually causes of their *forms* (ibid.) rather than of each other. But I think, we can neglect that point in the reconstruction. Kant mentions forms, I think, because he wants to highlight that the other parts make some part to be as it is. We can read this as a qualification into my statement of CSC and of the argument.

would follow that natural ends are ends proper. Thus, what the diagram seemingly shows is that HC and CSC are jointly sufficient for ends.

But is a thing that fulfills Diagram 3 also a product of nature? If we consider Diagram 3 in more detail, then there is an immediate worry. According to the diagram, for an object O, the concept C(O) determines the parts (or their origin, maybe). But the concept has to be in the mind of somebody. Now the obvious way in which C(O) can determine the origin of the parts is that an artisan produces the parts with having C(O) in mind. But if this is so, then the object O is at least very close to being an artifact – indeed, if causality is transitive, then the artisan *is* the cause of O.¹⁶ And we are not then dealing with a product of nature.

The problem goes back to the argument for HC. On the reading proposed in this paper, the argument considers two alternative ways in which an object that consists of parts may be possible only as an end: Either the composition of the object is possible only in virtue of C(O), or the parts of the objects are possible only in virtue of C(O). The first alternative was excluded, since it implies that O is produced by an artisan. To that extent, the argument is sound. The problem, though, is that the second alternative seems no better than the first one, since it also leads to the view that O is caused by an artisan.

5.3 Whose concept is it?

Here is our problem again: Diagram 3 makes only sense, if we can assign the concept C(O) to some epistemic subject. It cannot be an artisan, for then the natural end would be an artifact. But who else can it be otherwise?¹⁷

There is still one person left who can do it. That is the judger. It is the judger's concept of the whole that does the determining. This, in a nutshell, is Kant's proposal.

But the proposal seems to be a complete non-starter. For how can the judger and her representation determine some object? We do not affect some object, if we look at it or if we judge it to be this or that. Rather, for Kant, in acquiring empirical knowledge, we are affected. In Kant's terms, only an *intellectus archetypus* would kind of bring about things by looking at them (see Mohr 2004, 137–138 and 414–415 for *intellectus archetypus*).

But Kant has a counter to offer. His suggestion is that the judger's concept of the whole does not determine some object out there in the world. What the concept of the whole literally determines is the judger's *cognition* of an object.

An important passage in this respect is the passage in which Kant derives the causal support

¹⁶ Transitivity of causality means this: If A causes B and B causes C, it follows that A causes C.

¹⁷ A possible answer at this point is, of course, that God produced the object with the concept in mind. That answer solves our problem, if God creates objects via natural processes. But Kant does not consider this answer, and for the purposes for this paper, I will simply follow him without examining the issue. Regarding Kant's views, there is a connection to his denial that what he calls the physico-teleological proof for God's existence is successful (see particularly CPR, IV:648-658/578-583; but in the CTJ, Kant offers a moral argument in favor of God's existence, see, particularly, §87/457-463/313-318). For the purposes of this paper, one may suggest a *pragmatic* rationale why Kant does not consider God at this point: Ultimately, Kant's task is to make sense of teleological judgments in the natural sciences. To analyze teleological judgments in terms of theological notions does not have much in favor of it, because, at least in present days, scientists need not be committed to think that God exists and produces all kinds of objects. This is a pragmatic argument – a refusal to understand teleological notions in terms of God's actions at this point is certainly compatible with the view that God created individual objects of all kinds through natural processes.

condition. According to Kant's argument, the concept of the whole determines the parts and their combination

“not as a cause – for then it would be a product of art – but as a ground for the cognition of the systematic unity of the form and the combination of all of the manifold that is contained in the given material for someone who judges it.” (§65/373/245).

The passage makes it clear that the concept C(O) does not determine an object out there in the world, but rather a cognition, as Kant puts it. This is also suggested in the following passage, in which Kant speaks of a body that must be thought of as a natural end:

“the concept of [...] [the particular body] would in turn be the cause (in a being that would possess the causality according to concepts appropriate for such a product) of it [the body, presumably] in accordance with a principle.” (§65/373/245, translation changed).

In an intellectus archetypus, says Kant, the concept of the whole would indeed produce some object. For us, we may add, the concept of the whole in some way determines a cognition.

So far I have glossed over the question what the crucial cognition is a cognition of. What is cognized through the cognition?

The second passage that I have quoted suggests that it is the cognition of the whole thing (a tree, say). But that cannot be the answer. For, first, that the cognition of some O (knowledge of something) is in some way grounded in a concept under which O falls is a general thesis that Kant defends in the first Critique. The thesis is supposed to apply to every kind of knowledge. But at the point of the discussion where we are, Kant has to go beyond his general thesis, for we are concerned with what is in some sense a special class of objects, viz. natural ends. A second reason why the concept of the object cannot ground the cognition of the whole object itself, is this: If natural ends are to be ends in some sense, then the pattern in Diagram 3 needs to be instantiated. But if C(O) determines the cognition of O, then we are very far from that diagram – in the diagram, the arrow that designates the determination points to the parts, rather than to O.

Diagram 3 suggests an alternative answer to the question: What C(O) determines or grounds is the cognition of the parts and, maybe, of their interaction (the interaction of the parts is somehow focused on in the first passage that I have quoted in this subsection). Kant does not spell out what that could mean, but for a first illustration we may say that a judge will typically proceed top-down rather than bottom-up. She will start from the concept of the whole, and he will make sense of the parts by relating them to the whole. Maybe, the identification of the parts crucially turns on the conception of the whole. In functional decomposition, the parts of a biological system are identified in terms of their function, and the identification of the function may relate the parts to the whole.

Let me sketch an example. Living beings have hearts. Now one can certainly identify the human heart by its form, by its weight, by its position within the human body etc. This is probably how the heart was thought of as for a long time. But for generalizations in biology we wouldn't probably identify the heart in that way. Suppose, we are dealing with a hitherto unknown mammal, and our task is to find its heart. The form of the human heart may be a very bad guide to find the heart. Rather, we would look for an organ that fulfills a certain function, viz. circulating blood, where in turn the circulation of the blood serves the function of keeping the living being alive. That suggests that we identify certain types of organs by their function for the whole living being. Accordingly, the word “heart” is not defined in terms of morphological and similar notions, but rather in terms of a function that links the heart to a whole living being.

There is also a slightly different way of spelling out what the crucial cognition refers to. The idea is that the concept of the whole grounds the cognition of *O's origin or stability*, as far as that arises from the parts. That would roughly be compatible with Diagram 3, because Diagram 3 indeed concerns the origin or the stability of O. In fact, as has been noted before (Sec. 3), in the type of diagrams that we consider, the determination does not strictly concern the existence of the cause, but rather the cause, *insofar it causes the object* (here the parts, *insofar they produce the whole*). There is also textual support for this new suggestion. At a place where Kant considers something that is judged possible only as an end, Kant says (§64/370/242; cf. also §63/366-367/239):

“even empirical cognition of it regarding its cause and effect presupposes concepts of reason” (translation changed).

Altogether, Kant's proposal is this: The concept C(O) does not literally determine the object O, but rather the cognition of its parts or of its origin. “Determination” may be understood like this: In certain kinds of inquiry about the object O, we start with the conception of the whole object.

Kant's proposal has important consequences for the status of judging something a natural end. So far, we have assumed that to judge something a natural end is to assert matters of fact that obtain in a mind-independent way. But at this point of the inquiry the assumption is given up. Ultimately, on Kant's understanding, to judge something a natural end is not to assert it an end in a literal sense. In the related judgments, it is not asserted that C(O) determines the parts of O. The crucial determination relation is not supposed to hold in the world out there, but rather in an “epistemic world” within the judge. The relation holds *for us*, but not in a world that is independent from us.

As a consequence, Kant's account of judging something a natural end is not realist. In order to illustrate that, assume that Peter judges O a natural end. Peter may express his judgment by saying: “O is a natural end.” On Kant's understanding, if Peter's words are taken literally, they do amount to a contradiction. But Kant proposes a different reading of Peter's words such that Peter turns out to make a reasonable point. Under Kant's proposal, the statement does in fact partly make an assertion. It is claimed that the parts of O cause O (CSC). But there is another component of Peter's judgment. Kant does not quite make explicit what kind of mental event, speech act or attitude that component is. But in order to make Kant's proposal a bit more suggestive, we may say that the other component is this: Peter *commits himself to approach the object in a particular way*, viz. roughly to proceed from the whole to the parts. Or: Peter judges that, in certain types of inquiry, the object ought to be approached in that way. Or: Peter simply *is* approaching the object following the analogy. And that might be expressed in Peter's linguistic statement.

Kant himself describes the status of judging something an end in the following terms:

“[t]he concept of a thing as [...] 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 judgment, for guiding research into objects of this kind [...] in accordance with a remote analogy with our own causality in accordance with ends [...]” (§65/375/247).

Here, that the concept is not constitutive but rather regulative means roughly that the concept does not figure as a predicate in factual assertions; rather, it is supposed to provide a rule for approaching the object (cf. §70/386-388/258-260).

The example with Peter has made vivid how we may think of the non-factual component of the judgment. For simplicity, let me stick with the view that it is a commitment. But what exactly is the content of that commitment? To which kind of approach does Peter commit himself?

As the last quote makes plain, Kant himself suggests that an analogy is crucial for the understanding of judging something a natural end. But, apparently, Kant struggles quite a bit in getting clear how exactly the analogy is to be understood. In the passage just quoted, Kant suggests that there is an analogy between natural ends and artifacts produced by artisans, but a few lines above in his text (§65/374-375/246-247), he asserts that, properly speaking, there is no such analogy. But if there is no analogy, then Kant has failed to explain the content of the non-factual component in judging something a natural end. My reconstruction of Kant's view may help to sort things out. On the proposed interpretation, judging something a natural end has a purely factual part: It is claimed that the parts cause the whole. At first sight that makes any analogy with an artisan problematic, for how can one assert that the parts cause the whole and at the same time suggest an analogy according to which an artisan has produced the object? This seems Kant's main reason for claiming that, strictly speaking, there is no analogy. But what Kant overlooks at this point is that the analogy may refer to the second arrow in Diagram 3. The analogy would then be that an artisan has produced the *parts* with the concept of the whole in mind.

Another analogy that is closely related is that with an intellectus archetypus. The content of the commitment may then be to proceed as if we were an intellectus archetypus (cf. Ginsborg 2006, 460-461).

That Kant's account is non-realist has important consequences for the characterization issue. Given the non-realism, a characterization cannot pick the objects that are natural ends; rather the objects that may properly be judged natural ends are to be picked. But when is an object properly judged a natural end according to Kant? Well, at this point we just have to insert Kant's account of judging something a natural end. One condition in the characterization is obviously that one may properly assert the parts to be the cause of the object. And that, of course, requires that the parts *are* the cause of the object, which precisely is CSC. The other condition is that the commitment to a particular epistemic approach to proceed top-down is appropriate for the object under scrutiny. And, of course, the commitment to that approach is appropriate, if the approach is appropriate regarding the object. But when is the approach appropriate? I suggest, it is appropriate, if we can not resolve an epistemic task unless we adopt the approach, i.e. if *this is the only way to understand the parts* (or the origin of the whole, as far as it arises from the parts). In practice this means that the parts bear such a relation to the whole that we cannot proceed bottom-up. That is a version of HC. But the version somehow involves our epistemic abilities. In that sense, in the characterization of natural ends, HC and the corresponding arrow in Diagram 3 have to be taken with some grain of salt.

We can infer that, even under Kant's non-realist account, CSC and HC provide necessary and jointly sufficient conditions that spell out the characterization of natural ends, provided some qualifications are borne in mind. For the following sections, CSC and HC will therefore provide the characterization of natural ends. Another consequence of my suggestions, by the way, is that we may judge an object a natural end, if and only if we must judge it so.

5.4 Kant's final characterization of natural ends

As the analysis of the argument in §65 has made plain (Sec. 4), Kant, after having derived both HC and CSC, finishes his characterization of natural ends by a summary and a few more thoughts. The most important point seems to be that a natural end is necessarily

“an **organized and self-organizing** being” (§65/374/245).

I take it that this is a short formula that summarizes Kant's characterization of natural ends, which, in turn, is ultimately in the conditions. How can we understand the new formula?

For Kant, things that are judged natural ends are *organized*, because they are judged to have organs as parts. On Kant's understanding, a part of something is an organ, if it exists for the sake of the whole and of the other parts (§65/373/245). That the parts of a natural end exist for the sake of a whole is clear from Diagram 3 and Kant's understanding of “for the sake of” (Sec. 3). Kant's claim that the parts exist also for the sake of the other parts has not really been justified, but I cannot discuss this further. Kant's other term, “*self-organizing*” obviously takes up the causal support condition according to which the parts and thus in a sense the object itself provide the cause of the natural end.

5.4. The preliminary characterization of natural ends

As we have seen, for a cogent argument, Kant's preliminary characterization of natural ends for which real-world examples were given, has to be related to the final characterization. The preliminary characterization has it that

“a thing exists as a natural end **if it is cause and effect of itself** (although in a twofold sense)” (§64/370/243).

For Kant's argument, it is sufficient that the preliminary characterization implies the final one.¹⁸ Kant does not show this, but we may argue as follows: In some stretched sense, the parts of a thing may be thought of as that very thing. Now, in Diagram 3, the parts cause the whole, and, thus, in the stretched sense, the thing itself (properly speaking its parts) is its cause. Moreover, according to Diagram 3, the concept of the thing determines the parts (the origin of the parts). So, if we forget a while that the concept of the thing is not the thing itself and that determination is not here causation, we may say that the thing (its parts) is also the effect of (is also determined by) the thing (its concept, to be precise).

This way to relate the characterizations has two merits: First, it explains why Kant says the thing is its own cause *and its effect*. This seems redundant, because, per definition, if A is the cause of A, then A is also its effect. Kant, I think, says that the thing is its own cause and effect, since he has two relations in mind: The parts produce the whole; and the whole (its concept, properly speaking) determines the parts. Second, Kant's remark in the brackets – “although in a twofold sense” (*ibid.*) – can now be made sense of as follows: We are really talking about two relations in which the objects stands to itself. One is causation, the other is determination.

Another interesting question is how the phenomena from the illustrations with the tree instantiate the final characterization of natural ends. Unfortunately, one has to say that the final characterization moves away from the three respects in which a tree causes itself. The first

¹⁸ I take it that the preliminary characterization is supposed to be equivalent to E and not to NE.

illustration – reproduction – is not at all related to the final characterization, which exclusively focuses on one individual.¹⁹ The second illustration – growth – does not obviously concern parts and wholes, either. Only some phenomena mentioned in the third illustration – causal relations between the parts such that the whole thing is sustained, e.g. – instantiate in a way the pattern of Diagram 3. But this may be enough for Kant’s overall argument to be cogent.

5. Summary and discussion points

The most important task of the Analytic in Kant’s “Critique of the Teleological Power of Judgment”, is to answer the following question: What is it to judge an object a natural end? As Ginsborg (2001, 2006) has pointed out, the question poses a challenge, because to judge something a natural end seemingly amounts to assert inconsistent propositions, viz. that something is a product of nature and that it has been produced through intentional action.

My paper starts from the simple observation that Kant himself explicitly notes the air of contradiction around the notion of a natural end in §64. After he has done so, he starts some argument to address the worry. My proposal was to have a closer look at that argument in order to check whether Kant does not offer a solution right here.

According to my view, Kant does indeed offer a solution. Let me summarize it in a very condensed way. There is first the *account* of judging something a natural end. For Kant, judging object O a natural end is to assert that its parts cause O and to commit one to approach the parts or the origin of O from the top to the bottom, starting with the concept under which O falls, as if the parts of O were designed by an artisan for the sake of O. This account is non-realist, because the judgments are not just taken to assert a matter of objective fact; rather, they have a subjective component – viz. a commitment. The idea that the judge commits herself to a certain approach was actually only one suggestion from my part to cash out the non-realism; there are other ways how this might be done; and they should be tested in the larger context of the CTJ. In any case, the non-realist account is clearly not empty.

Second, there is the characterization of objects that are properly judged natural ends. On my view, Kant’s characterization is this: In natural ends, the parts cause the whole. Moreover, the epistemic approach from the concept of the whole to the parts is appropriate. I have suggested that it is only so, if the parts are so intimately related to the whole that we cannot make sense of the parts or the origin of the whole otherwise. In a sense, the parts seem possible only in view of the concept of the whole.

On my reconstruction, what is crucial for Kant’s account is the peculiar way in which the parts of a natural end are supposed to be related to the whole and to each other. In Kant’s terms, we are dealing with organized and self-organizing beings. Here I am in substantial agreement with Zuckert (2007), Ch. 3.

From a more systematic point of view, Kant’s characterization of natural ends, I believe, highlights important traits of living beings. In particular, what I have called the holism condition is interesting. The holism condition claims some priority of the whole. Kant’s tenet is that living beings must be regarded top-down, as it were, rather than bottom up. We have to start with the

¹⁹ One may suggest that the different individuals are parts of the species (Guyer 2001, 264 reads this suggestion into Kant), but the suggestion seems too obviously false.

whole rather than with the parts. This sounds like a profound truth.

How successful is Kant's argument overall? In the previous sections, I have tried to provide a reconstruction of the argument, under which it goes through, although there were problems with the details. There is, however, one problematic point that I have not yet touched. At some point in the derivation, Kant gives up realism and takes some component of the judgment not to be a factual assertion any more. That is necessary, because, literally taken, on Kant's understanding, there cannot be a natural end. A critical question, now, is whether one could not have argued in a substantially different way by giving up realism at a different place. Let me give an example: According to my interpretation, Kant argues for a so-called holism condition by excluding the idea that the natural end is supposed to arise from a combination of parts that may exist independently of the whole. The crucial question, now, is whether Kant could not have given up the realism condition at this place by arguing that the natural end is in a non-literal way thought to be composed of independent parts.

In this paper, I have restricted myself to a small portion of Kant's text. I take this to be legitimate, because we have to start with understanding the details. But at the same time, the interpretation that has emerged should certainly be put in a larger perspective. At least the following two questions are important in this respect. First, Kant obviously thinks that teleological thinking is useful in the sciences. The question, then, is how my account can underwrite that. Second, in the CTJ, Kant suggests that teleological judging is more objective than aesthetic judgment (see Introduction VIII/192-193/78-79 and §61/359-360/233). The related question is: How can the proposed interpretation make sense of that suggestion?

I conclude with a possible objection against Kant. Kant's claims regarding the way the parts and the whole of a natural end are related are only true for living beings, e.g., if we consider parts *at a certain level* – if we take the heart and the liver, say, as parts. But at a more fundamental level, a living being consists of atoms as its parts. And the atoms are not related to the concept of the whole living being at all. Also, the atoms are not the causes of the other atoms and the whole. So, at this level, Kant's characterization fails for what are supposed to be the prime examples of natural ends.

A first thing to be noticed here is that the objection concerns Kant and not my interpretation. Secondly, Kant discusses parts and wholes elsewhere in his work (for instance, in the second antinomy of pure reason, particularly IV:466/480), and his results may be brought to bear on the present problem. But it would be far beyond the scope of my paper to do that. Instead, I will offer a few systematic thoughts. What seems required here is a distinction between different ways in which something may be part of another thing. The idea may be that atoms are only parts of an animal in a weak sense, but not in a strong one (for instance that they are parts only casually, but not permanently). The next step should then be to show that Kant's claims regarding natural ends, if read in the right sense (i.e. if we read "parts" in the strong sense), do indeed separate between things that we wish to come out as natural ends, but not of others. If this works out fine, then we can propose that Kant, in his discussion, simply refers to parts in the strong sense. However, if this proposal is to make any sense, an additional argument is required that shows that natural ends have at all parts in the strong sense.

Another, presumably more promising strategy would modify the characterization slightly: The new characterization would only demand the *existence* of parts that are possible only in view of the whole and that causally support each other. What is distinctive about natural ends on this

proposal is that *there is a level of non-trivial parts* such that the parts are possible only in view of the whole – not, that this is true at any level.

References

- Düsing, K. (1986): *Die Teleologie in Kants Weltbegriff*, Bonn (second, enlarged edition).
- Ginsborg, H. (1997): Kant on Aesthetic and Biological Purposiveness, in: A. Reath, B. Herman, and C. Korsgaard, eds., *Reclaiming the History of Ethics: Essays for John Rawls*, Cambridge, pp. 329-360.
- Ginsborg, H. (2001): Kant on Understanding Organisms as Natural Purposes, in: E. Watkins, ed., *Kant and the Sciences*, New York, pp. 231-258.
- Ginsborg, H. (2006): Kant's Biological Teleology and its Philosophical Significance, in G. Bird, ed., *A Companion to Kant*, Oxford, pp. 455-469.
- Guyer, P. (2001): Organism and the Unity of Science, in: E. Watkins, ed., *Kant and the Sciences*, New York, pp. 259–281.
- Guyer, P. (ed.) (2003): *Immanuel Kant's Critique of the Power of Judgment: Critical Essays*, Lanham (MD).
- Kant, I. (2000): *Critique of the Power of Judgment*, edited by P. Guyer, translated by P. Guyer and E. Matthews, Cambridge.
- McLaughlin, P. (1990): *Kant's Critique of Teleology in Biological Explanation. Antinomy and Teleology*, Lampeter.
- Mohr, G. (2004): *Immanuel Kant. Theoretische Philosophie. Texte und Kommentar. Band III*. Frankfurt am Main.
- Wright, L. (1976), *Teleological Explanations: An Etiological Analysis of Goals and Functions*, Berkeley
- Zuckert, R. (2007): *Kant on Beauty and Biology*, Cambridge.

Acknowledgments

I am grateful for extremely valuable criticism by two anonymous referees. I would also like to thank N. Naeve for discussion and H. Pringe for written comments. Part of this work was supported by the German Academic Exchange Service (DAAD) and the Center for Philosophy of Science at the University of Pittsburgh, and I am grateful to them.