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Hegel’s Case for Means and Ends: The Logic of ‘Teleology’

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Abstract

This article offers a constructive reading of the ‘Teleology’ chapter in Hegel’s *Science of Logic*. I argue that it contains an apparently conclusive case for the abstract concepts of means and end (in the sense of ‘purpose’), which has remained unrecognized in the literature. I then show some implications of the fact that the argument is entirely abstract in Hegel’s system.

Hegel devotes a chapter in *Die Wissenschaft der Logik* (1812–16) to ‘teleology’, entitled ‘Teleologie’.¹ Teleology was, historically, the philosophical doctrine concerning the general purpose of nature, namely the enquiry into whether nature, something within it or all of it, serves a purpose (Wolff 1736: §85; Schelling 1800: 39). ‘Purpose’ means in this context an external relation we say some things exhibit with respect to a possible future state or situation, a potential outcome, by virtue of the fact that they have been created or are used for that state or situation to come true. The logical subject of ‘Teleology’ in *WdL* is, actually, the concept of means or, more precisely, the concept of conformity to an end, as the German word *Zweckmäßigkeit* can literally be translated. The matter has, admittedly, a well-established theological and metaphysical pedigree, and therefore its presence in Hegel’s book, given the ambitions that motivate Hegel to come up with a speculative logic, should not come as a surprise. However, the particular manner in which he approaches this issue in *WdL* has caused a great deal of confusion and, in fact, ‘Teleology’ has a somewhat bad reputation and its role in the book remains disputed.

The doubts concerning ‘Teleology’ have taken on various forms in the last four decades. For example, some scholars see here an anticipation of later-to-come arguments, which Hegel would rather have developed in the chapter on ‘Life’ or ‘Das Leben’ (Kreines 2015, Knappik 2019, cf. Chierighin 1990, Cooper 2020).² In this sense, ‘Teleology’ would rather pose problems than contribute solutions, and a further question would arise about whether Hegel provides these in the

next chapter of *WdL* or elsewhere (Findlay 1964, DeVries 1991). There are also those who interpret that the most salient matters of the chapter—namely subjective purposes, artefacts, activities and the like—are not suitably introduced in Hegel’s *Logic* even if it is granted that they deserve a place there (Hösle 1987, Spahn 2007). The implication is that, being more than an introduction to what follows, ‘Teleology’ prefigures a logic of spirit of sorts, so that it is not, strictly speaking, an integral part of the general argument of *WdL*. Such a logic of spirit might be, again, a forthcoming topic, yet not the next one, in the *Logic*.³ Besides, there are those who simply believe that ‘Teleology’ does not contain any intelligible lesson and that it is, in fact, one of the least inspiring texts in the entire *WdL* (see e.g., Pippin 1989). In sum, the chapter has often been considered superfluous in Hegel’s *Logic*, merely an interlude.⁴

However, I take it to be natural, for several reasons, to react with suspicion to this reception and, therefore, approach ‘Teleology’ in a more charitable, constructive manner, of which I aim to provide a meaningful example in this paper. Actually, the situation of the chapter, given that it is exactly the same in *WdL* as in all editions of Hegel’s *Encyclopaedia of Philosophical Sciences* (1817, 1827, 1830), whose respective first parts are invariably a ‘Wissenschaft der Logik’, seems entirely consolidated in Hegel’s system. We have to go back to the sketches on logic from the Nuremberg period to not come across a chapter of such title, and yet the central topics of ‘Teleology’ in those early materials already deserve due attention. In the 1808 ‘Encyclopaedia for the *Oberklasse*’, for example, a compact discussion of the concepts of purpose, means and realization of a purpose is to be found preceding the ‘doctrine of the idea’, as in *WdL*, and something similar occurs in the manuscripts on logic from 1809 to 1811 (*TW* 4: 28f., 154–57, 201f.).⁵ Also, the issue of ‘Teleology’ is of great relevance, undoubtedly, not only for the philosophical tradition, but in Hegel’s system.⁶ Teleology is, in fact, a logical matter that has a definite projection both onto the Philosophy of Nature and the Philosophy of Spirit, in which references to the analysis and results of ‘Teleology’ are not absent.⁷ This proves, by the way, that for Hegel the chapter actually reaches some determinate results. Besides, the speculative, metaphysical implications of customary teleological concepts are not only historically enshrined, but are also manifest in *WdL*. Indeed, ‘Teleology’ does with end as purpose and means what other chapters have done before, in their own way, with e.g., ground, property, substance, possibility, cause, mechanism and a long list of ‘pure thought-determinations’. For all these reasons, the belief that ‘Teleology’ is outright misplaced or constitutes a mere digression is rather odd. Accordingly, I shall defend, against a common opinion, that there is nothing dispensable in this chapter, that it is rather crucial in Hegel’s work and that, although it does not exhaust the subject matter it deals with, on which the chapters ‘Life’ and ‘The Idea of Cognition’ have something to add, it makes a fundamental contribution, a non-provisional one, right there where it is, to the overall argument of *WdL*.

More specifically, I shall argue that the chapter answers a metaphysical question Kant posed in his critical work. I am convinced it does not merely introduce new formulations of an inherited vexed question, less so it simply repeats a question. The central issue is, in a few words, what does having a purpose, being purposively referred to an end, ultimately consist in? Not, hence, if there are many or few ends and neither, contrary to the expectations possibly raised by the title, if nature, creation, the cosmos has some purpose or why we think it does.⁸ Coherently, the answer that 'Teleology' seeks must be an explanation of what having a purpose is—an explanation in entirely abstract terms. The chapter has thus a logical task, in Hegel's terminology.⁹

In the first part of the paper I shall present this answer. Only later, in the second part, shall I proceed to show in some detail how 'Teleology' builds a case for an answer of this kind. The paper closes with a third part in which I shall make explicit some implications that the fact that 'Teleology' contains such a case has, both for its topic and for *WdL*. For those interested mostly in Hegel's thoughts about the relation between means and ends, parts one and three should be of particular relevance, while those interested in 'Teleology' as such will find in part two what I think the chapter has actually to offer.

I. Hegel's account, or from having a purpose to being an end

'Teleology' examines the relationship between the concepts of conformity to an end or service to an end (*Zweckmäßigkeit*) and end in and for itself (*Selbstzweck*), i.e. purpose that does not serve a further purpose. Or, in short, between means and end, since a genuine means is what actually serves an end. A connection is certainly obvious: the latter concept is implied by the former, since there are means only where there are ends that are not relative ends, i.e. merely means, in turn, for further ends. Indeed, something has a purpose, strictly speaking, in so far as something at all, which it serves, is an end as purpose in and for itself. So, for example, the pillars of a building enable it to remain standing and are means for its standing in so far as it is an end in itself, when it is, that it remains standing. In this sense, the end is the truth of the means, to use the well-known—although, certainly, equivocal—Hegelian expression. And the 'Teleology' chapter is meant to show this, in as much as its subject is, initially, 'external' ends and leads, finally, to the conception of an 'internal' or 'inner' end, i.e. an end or purpose effectively in and for itself. But obviously the chapter does not simply corroborate the trivial and conditional truth that means depend upon ends, which would not satisfy any speculative interest, since it would solely express that teleological relations imply the fundamental teleological concept of purpose, but it would not account for this concept.

Further scrutiny of the abstract concepts of end as purpose and means, as in other parts of *WdL* of other abstract concepts, is supposed to provide this kind of satisfaction. Now, to evaluate Hegel's achievements in this regard, it is necessary, first of all, for me to make the specific difficulties of the case explicit. So, in the first subsection to follow I aim to expose them in brief (I.i). Next, we will see that they represent an insoluble conundrum for Kant (I.ii). (A comparison of Hegel's text and account with Kant's elaborations is very instructive, as will become apparent.) Third, I shall offer a sketch of the solution that Hegel proposes (I.iii).

I.i. The dialectic of means and end

The first difficulty is that being in accordance with an end (or being *zweckmäßig*, that is, having one's own measure in an end) is not sufficient to be a means, and not only because something is not truly served if the service is not effective, but because the alleged end is only served teleologically if, in addition, the benefit is not accidental, but itself somehow an end, i.e. the actualization of an end, which would occur when the means is *used* to achieve precisely such an end. In my example, given that the existence of the building is wanted, given that someone's purpose is to keep the building standing, then the pillars, without which the building would collapse, are means—some means among others—which someone makes use of to achieve this end. Yet, of course, to say that having an end equals being used to carry out an end does not clarify anything about the relationship between means and ends. By claiming this equivalence, we merely affirm the reference (*Beziehung*) or being-referred-to that we wish to understand. Hence, we actually stumble upon the difficulty not to indefinitely defer the explanation of the purposiveness of the end.

But, secondly, what could it be to be an end that is no longer relative? In principle, it cannot consist, of course, in being a means, because it cannot consist, precisely, in serving an end. But, in the absence of this kind of service, what makes something an end? If it turns out that nothing happens to accomplish the end, if there is no activity that leads to making the end come true, what is the point of talking about something being, already or still, an end? If it is accomplished and nothing else happens for its accomplishment, then if it was an end, it is no longer one. If it is not yet realized and, again, nothing happens to make it happen, then at most it might be an end, but it is, in fact, not one. So that, just as the existence of the means depends upon the existence of the end, it turns out that the existence of the end depends upon that of the means. And I do not mean merely the fact that, to continue with the previous example, the existence of the purpose that is the building depends upon the existence of the pillars that sustain the building, but to the fact that if we cease wanting the supposedly essential means for an end to be realized to exist (to be there, to effect what they usually effect), then we have ceased wanting the end to be realized. (For instance, if we do not want to lie any longer,

then it is that we do not really want to deceive or confuse anymore.) Thus, the terms of the problem, end and means, presuppose each other and, as a consequence, it becomes impossible, apparently, to explain one by means of the other. The second difficulty we run into is a seemingly irresistible circular definition of end and means.

This mutual presupposition becomes particularly evident when analysing the teleological relationship from a causal point of view, as a relationship different from the one that links causes and effects in time when the former are prior to and the explanation of the latter. In the teleological relationship it is assumed that an activity, as a means, actually produces a result (even if this is not sufficient, as I have said, it is still essential), but that the explanation of the activity and its result, paradoxical as it may sound, is not found entirely or, better, not ultimately, in the activity itself. Thus, the means has to be the causal principle of the end, realizing the end or leading to the realization of the end, but the end has to be the causal principle of the means and the answer to the question 'why the means?', which seems to imply that the means *is and is not* the causal principle of the end and that the end *is and is not* the causal principle of the means. Of course, an effect that a process leads to is itself an end of sorts, but not necessarily a purpose.

The upshot is not simply that the notions imply each other (which, perhaps, is not an insurmountable problem for their understanding as they both capture diverse aspects of a unitary whole), but rather that they compete, from an etiological point of view, in the explanation of what happens. This antagonism represents a new challenge, indeed a problem more puzzling than the previous ones. It turns out that if the means self-sufficiently explains the end, then the end is superfluous to explain the means and the alleged means is not a genuine means. The mutual presupposition or mutual implication connects principles that contradict each other, means and end contradict each other, because if the end explains the process in the last instance, then the means does not explain it in the last instance, and vice versa.

I.ii. The contradiction that in Kant's eyes is insoluble

Kant expresses this contradiction by analysing the concept of 'natural end' (*Naturzweck*) in two requirements that, as we will see, are opposed. The fact that he addresses the contradiction with regard to 'natural' purposes would be worthy of an in-depth discussion, which is, however, beyond the scope of this paper. In the absence of such a discussion, let us say that, for Kant, 'natural ends' are precisely those that are amenable to an analysis such as the one that concerns us now. As a matter of fact, Hegel believes there to be a 'more general' problem that arises where Kant deals with this kind of ends.¹⁰

In Kant's preliminary approach in *KU*, the end is the concept that is the foundation or ground of the existence of the object of which it is the concept (*AA* 5:

180). This definition certainly masks the contradiction. Yet, as soon as that ‘being the ground of’ is analysed, the contradiction surfaces. As a cause, the end is distinguished from ordinary efficient causes in that it is related in a series to its effects both in a descending or ‘progressive’ (as Kant calls it) and an ascending or ‘regressive’ fashion, while the latter are related to their effects merely in the first manner:

In so far as the causal connexion is thought merely by means of understanding it is a nexus constituting a series, namely of causes and effects, that is invariably progressive. The things that as effects presuppose others as their causes cannot themselves in turn be also causes of the latter. This causal connexion is termed that of efficient causes (*nexus effectivus*). On the other hand, however, we are also able to think a causal connexion according to a rational concept, that of ends, which, if regarded as a series, would involve regressive *as well as* progressive dependency. It would be one in which the thing that for the moment is designated effect deserves *none the less*, if we take the series regressively, to be called the cause of the thing of which it was said to be the effect. (*AA* 5: 372; my emphasis)

Famously, Kant synthesizes this double arrangement in defining natural ends, before these clarifications, as *cause and effect of themselves*. But he immediately notes that this concept of self-cause and self-effect is ‘indeterminate’ and strictly ‘inappropriate’ (*AA* 5: 372, ‘somewhat inaccurate’). It is indeterminate, arguably, because being ‘cause and effect of itself’ could mean different things. In Kant’s eyes, in fact, it can simply mean, for example, that a certain being has engendered or produced a being of the same species, but also a number of other things. And it is supposed to be strictly inappropriate because in so far as the end is a cause, it is not an effect, and vice versa, as it is clear in this particular case. The stark contrast between Kant and Hegel’s stances and the fact that, at the end of the day, the former continues to have a problem and the latter, in my opinion, has overcome it, can be traced back to a fundamental discrepancy when attributing a content to this concept of end. The general underlying problem is, in the aforementioned terms, whether the relationship between means and end can be thought of without contradiction.¹¹

As ‘natural ends’ are paradigmatically organized beings (wholes), Kant’s analysis actually addresses how their parts and the whole they constitute are related from a causal point of view. The two requirements that *KU* raises are the following: in order to be an end of this kind, it is necessary, in the first place, that the parts of the being in question are possible, in their existence and form, only by reference to the whole to which they conform; and, secondly, that the parts produce one another reciprocally and, in this way, jointly produce the whole. The analysis

expresses, if not an obvious contradiction, at least an underlying tension. Kant does not hide that those requirements make explicit, simultaneously, what needs to be fulfilled and why a unitary fulfilment is problematic. On the contrary, he stresses this very fact.

Logically, Kant argues that the only way out of this impasse, or *aporia*, is the epistemological re-categorization of one of the requirements. The organized being does not have to comply with at least one of them, which will not prevent judging that the organized being complies with it from being subjectively necessary, or irresistible. And it does not matter which one ends up being re-categorized. However, for reasons that I cannot discuss here, Kant is inclined to think that it is the first requisite that needs to be qualified as a *sui generis* epistemological principle.¹²

The mere fact that a qualification is made is received by Hegel as a confession that the opposition has not been resolved. Making the two requirements compatible as Kant does means not solving their antinomy, rather continuing to think of the principles as opposed to each other. Solving it in Hegel's manner consists instead in conceiving the two principles as being fulfilled simultaneously and, indeed, the fulfilment of one by the fulfilment of the other, as I am about to explain.

I.iii. The determined and appropriate concept of inner purpose

Hegel believes that Kant cursorily contemplates the possibility of overcoming the opposition, but that he, unfortunately, rejects this chance straight out. Kant had recovered the Aristotelian concept of self-moving form only to abandon it immediately. In Kant's terms, the concept is that of an entity whose parts are merely possible, in their existence and form, by reference to the whole they constitute *as a consequence* of the fact that they produce each other reciprocally.¹³ All things considered, on Hegel's account, if the parts produce each other reciprocally, not in pairs but, rather, each one all the rest and vice versa, *then* each one is only possible by reference to the whole, because if each one serves the realization of the others and, likewise, is produced by the others, then each one exists as it is *for the sake* of the others. The parts are there, producing a certain effect, *because* they produce the effect they produce—and it is not that they are simply there, and then it happens that they cause a certain effect. This kind of dependency on their own effect cements the purposiveness of the parts. It follows, besides, that the whole they form produces itself or, in Kant's words, is the cause and effect of itself.

Hegel infers that the end or whole reveals itself as a final cause, it is a result that is the cause of its own production, the cause of itself, and also, in the aforementioned Kantian terms, a concept that is the ground of the existence of that of which it is the concept. The end is, in Hegel's terms, a concept that determines itself to exist. And this is all that is required, in Hegel's opinion, to have its purpose in itself.

So, in my eyes, Hegel is confident that he has found a determined and appropriate meaning to the notion of cause and effect of itself, which for Kant is indeterminate and inappropriate. In short, the determined meaning is that of a process (or entirety or ‘whole’ of activities) whose result is the existence of itself, that is, the concept of a self-productive process. This concept involves two new requirements, which are added to Kant’s; namely, that (1) the whole is re-produced or regenerated, strictly speaking, and that (2) it makes use of an external means, which is not itself, which is not part of itself, to do so. According to Hegel, an end is a certain whole in which each of the parts causes all the others to exist and to do what they do, *neither* an organized being that produces a similar organized being, that is, offspring, *nor* an organized being that grows and transforms gradually, without salient discontinuities. By implication, a cycle of states of a being or object is not as such a teleological process, let alone a mere series of concatenated states, however frequent or predictable they might be.

In contrast, Kant takes it that if the parts of a whole cause it naturally as a whole, then it cannot be said, strictly speaking, that the whole is an end. It can only be said, he argues, that it should be judged as if it were. It would be a genuine end only if its origination had obeyed an end. In such a case, something that behaves mechanically, like a fine mechanical tool, serves an end and actually produces an end. Yet, what puts this behaviour in the service of an end, that is, what endows the means with a purpose from outside, remains unclear. This is how Kant, in *KU*, postpones the explanation of the purpose. In Hegel’s eyes, he fails in the face of the difficulty of the indefinite deferral because he has not solved the issue of contradiction.

Instead, Hegel dismisses that first origin in his argument as irrelevant. If the whole actually causes itself in the manner described (because each part causes the rest and thus the whole, and for this the whole makes use of what is not itself, what lies outside itself), then a concept gives actuality to itself. A whole exists because it produces a certain effect, namely everything that constitutes it. This can now be said of it. It does not matter in what way and under what circumstances such a whole came into existence. A whole like this that *happens* to be formed is not *per se* a purpose carried out, i.e. a ‘realized purpose’. But if, from its formation on, it self-produces itself, maintains itself through some activity, then everything that it does in favour of this purpose and everything that constitutes it materially has a purpose or function, it is only possible by reference to the whole, has in its result (and in the reference to this result) its own causal explanation.

II. Hegel’s argument, or from the subjective to the realized purpose

In this section, I shall first stress that the lessons summarized above are to be learned from ‘Teleology’. Second, through a reinterpretation, I shall argue that

the chapter in effect offers such lessons. Note that even if 'Teleology' fails to come up with a compelling argument or even if it ends up deferring it, the attempt might be necessary, and necessary at this point in *WdL*. However, my aim here is not to provide a proof of pertinence or opportunity, I would rather like to demonstrate that a case for means and ends is contained in 'Teleology'.

II.i. Expectations regarding 'Teleology'

In the introduction of this paper I have already mentioned several reasons for thinking that the 'Teleology' chapter could have a relevant role in *WdL* in clarifying the meaning and applicability of the concept of end. My general approach faces, however, two intertwined interpretive difficulties. On the one hand, 'Teleology' starts by considering 'subjective purposes', so the impression is raised that the chapter will discuss how such purposes are to be realized. Therefore, it is not evident that 'Teleology' addresses means and ends in the abstract, as I claim. On the other hand, the introduction states that 'teleology' or 'purpose' has already been proved 'the truth of mechanism' (*GW* 12: 155, 157, 159). Hence, the concept of purpose appears as already established by the preceding chapters and, again, no general account of purposes is then expected from 'Teleology'.

I will reply to these concerns as follows. 'Teleology' develops an argument that leads from the concept of external purpose to the concept of internal purpose. This progression is made obvious in the text, as Hegel presents the issue at stake in these terms (*äußere und innere Zweckmäßigkeit*) and, towards the end, states the conclusion of the chapter by resorting to them once again. Hegel praises the philosophical contribution, which Kant deserves credit for, of differentiating these two kinds of purposiveness:

One of Kant's greatest services to philosophy was in drawing the distinction between relative or *external* purposiveness and *internal* purposiveness; in the latter he opened up the concept of *life*, the *idea*, and with that he positively raised philosophy above the determinations of reflection and the relative world of metaphysics, something that the *Critique of Reason* does only imperfectly, ambiguously, and only negatively. (*GW* 12: 157)

The objection might be raised that the chapter is divided into three sections whose titles are: 'The subjective purpose', 'The means' and 'The realized purpose', and that subjective purposes are not external ends whatsoever, but rather very special purposes of the means and activities that supposedly carry them out or at least try to. They are usually interpreted, in fact, as intentions, decisions, resolutions and the like. It can also be argued that external or relative ends are certainly means and that

the chapter speaks of means from a certain point on, namely the second section, not before.

Yet, it is disputable, doubtful indeed, that subjective ends are intentions or decisions or analogous mental acts. In fact, the first examples that Hegel gives of *Zweck* are neither intentions nor mental representations of any kind. His first examples are, rather, need (*Bedürfnis*) and impulse (*Trieb*) (*GW* 20: 210 [§ 204R]). The inclination of some interpreters (like Höhle or Spahn) to relocate ‘Teleology’ in *WdL* is caused by a reading of the initial concept as having a spiritual content, which others also take for granted—as if the chapter dealt exclusively with human ends and means, human activities and human artefacts. This is a mistake, in my humble opinion.

Besides, if, as I have argued, ends and means cannot be conceived separately, then it is perhaps not of such importance if the chapter begins by discussing ends or, instead, means, as long as the ends at issue are, in fact, external to the means, and vice versa. So, let us admit that subjective purposes are, by and large, external ends.

Now, just as true as the concepts of external and internal end are the concepts examined here, Hegel does not take for granted, despite appearances, that there are, indeed, subjective ends. How come that something deserves to be considered an end is, precisely, what needs explanation in the first place. To assume that a use for the concept of purposiveness has already been established would be rash. In support of this reading, the interest of such an explanation is affirmed explicitly in the introduction to ‘Teleology’. Hegel calls it the ‘essential question’ (*GW* 12: 159). It is also in the introduction, by the way, where Hegel refers to the antinomies concerning causality that Kant addresses in different works. As I have already mentioned, Hegel considers Kant not to have solved them—all he had done was pose a problem. Are causes always efficient or mechanical, or, otherwise, are there other kinds of causes and, specifically, final causes? Kant’s answer or, rather, reaction, had been to relativize the opposition which is problematic, as if the contradiction would solely emerge through a clumsy application of the different concepts, as if it were not the concepts themselves that imply a contradiction. However, as Hegel puts it, the essential philosophical concern is, no matter what Kant claims, which of these two concepts is true, adequate, and, more specifically, whether one of them is the ‘truth’ of the other, that is, adequate for conceiving what the other does not help to conceive.

Admittedly, Hegel claims that this ‘relative’ truth has already been proved in the previous chapters. But it is just as explicit with regard to the need to discuss at precisely this point if merely external ends are the truth of teleology—in which case, as Kant would have shown, there would be things that serve others, as a matter of fact, but not teleological relations in absolute terms. In my reading, we should expect from ‘Teleology’ an argument about the use of teleological concepts in, precisely, absolute terms.

The chapter closes by drawing inferences on how to understand the problematic relationship between means and realized ends. The conclusion reads that what appears to be a purely external teleological relationship is, all things considered, an internal relationship between *the* concept, the objective context of the concept and a certain activity—a relationship that objectifies an end. It follows that we can speak, meaningfully and strictly, of objective or real ends. Therefore, I find it certainly plausible that the chapter exposes a case for *means*, i.e. relative ends serving external purposes, and most importantly *ends*, i.e. ends in themselves or ends in absolute terms.

II.ii. The turning point of the logic of the unfulfilled end

Yet, what argument does ‘Teleology’ actually contain? At first glance, as I have already mentioned, it is an argument about the realization of subjective ends. Subjective ends, as their name suggests, are non-objective ends, that is, ends whose realization, whose objectification, is still uncertain. The chapter thus seeks to clarify how goals and objectivity are related in the hypothetical process of their realization. The realization happens through the use of some means. But, as the use of any means itself must be conceived, it seems, as an accomplished end, the introduction of means only makes it all the more urgent to rethink the initial problem, from which there appears to be no escape based on efforts, craft and tools. As far as I know, nobody disputes that the chapter poses an aporia.

The biggest challenge is not to discern this aporia. Much more difficult is to understand how Hegel pretends to circumvent it. In his eyes, a certain *reflection* produces a reversal and what seems to be just another means for the realization of the initial purpose ends up being considered, for some reason, the achieved end. It is probably the *prima facie* incomprehensible and sudden overturn, thus enunciated, that causes amazement in many readers and makes the text seem a sleight of hand. Suddenly, the observation that instead of the end we find yet another means turns into the conclusion that instead of the means we encounter now an end and, indeed, an objective end. So, it is as if the main source of problems would turn immediately, by some kind of prestidigitation, into a remedy against them.

It is also perplexing that after an introduction to the Kantian antinomies of causality the described difficulty should be discussed. When subjective ends are taken for ends of a subject who represents the satisfaction of his or her needs, the difficulty is interpreted as affecting that satisfaction. A subject who has needs and is aware of them has to do something to meet them somehow. But the process of doing so decomposes into an endless number of minor processes, as in Zeno's paradoxes concerning movement, in such a way that one is further and further away from satisfying them or, more precisely, one is always at an infinite distance from their satisfaction.¹⁴ Thus, a prejudice about the concept of subjective

end has led to an interpretation of the argument of the chapter as if it posed a difficulty about spiritual processes and, then, it has been naturally assumed that the difficulty can be solved, if anything, by better understanding the nature of action, the knowledge that intervenes in action and the movements of the will that supposedly underlie action. Within this framework, of course, it is understandable that the chapter is considered strictly out of place and inessential. And also that the notorious twist that works out as Alexander's cut in the concluding subsection of 'Teleology' is taken to signify some kind of immediate relationship between some ends and some actions.

But there is much to say against this kind of interpretation. We have already questioned that subjective ends are intentions or the like. It should also be noted that the concept of action is missing throughout the chapter. As a matter of fact, some artefacts and what their designers and users do with them are, at some point, examples in the text. But also other spiritual realities are examples in previous chapters and we do not infer that the concepts discussed therein have meaning, exclusively, for spiritual realities. Therefore, since the introduction to 'Teleology' is full of references to difficulties in understanding abstract concepts of cause, end and means, it is always preferable not to assume that the chapter is an interpolation as the topic it is supposed to address looks premature. And, above all, it is not true that the decisive turning point occurs because an immediate relationship between ends and means is uncovered, as readers like Charles Taylor have argued (1983). It would be a big mistake, in fact, to interpret that 'internal ends' are ends that are realized immediately, effortlessly, merely by wanting them.

Much more promising is to interpret, as Willem DeVries does, that Hegel confronts in 'Teleology' two 'models' of the relationship between means and ends. However, unfortunately, DeVries assumes that the first model is 'intentional', because he also succumbs to the temptation to interpret subjective ends as intentions. If he had read 'subjective' as 'non-objective' or 'not realized', which is how I believe we should, he would have named the model to be discarded differently; we should rather speak of the model of *Zweckmäßigkeit*. Another mistake he makes is to admit that the 'intentional model' is useful for something, even if not for everything (he thereby ignores the abstract character of the argument which is typical of the *Logic*). Nonetheless, reading DeVries puts us on the right track with regard to the substantial progression in the chapter: what Hegel rejects is that ends and means can solely have an external relation.

My own interpretation is based on an alternative reading of the 'overturn' at the turning point—and also on a peculiar take on the scope of the argument, as we shall see later on. Since the overturn is meant to resolve the difficulties initially raised, it is all but logical that the understanding of the overturn should guide the overall interpretation. The critical claim that the means is the realized purpose means, I think, that an end-purpose is realized if, and only if, the purpose of an

activity is to sustain itself as an effective process. To grasp the end in the means is, accordingly, to conceive an objective process whose result is the sustenance of a productive activity. A process whose end is only a means and in which, therefore, an end is realized is a process whose end is the means in which the process consists. In such a process, what happens is explained by the effect that what happens has. In this sense, the process has an end in so far as it achieves an end. Purpose appears here, through and through, an objective matter. As Hegel puts it:

The negativity thus returns to itself in such a way that it is equally the restoration of objectivity, but of an objectivity which is identical with it, and in this it is at the same time also the positing of it as an external objectivity which is only determined by purpose. Because of this positing, the product remains as before also a means; because of the identity with negativity, the product is an objectivity which is identical with the concept, is the realized purpose in which *the side of being a means is the reality itself of purpose*. (GW 12: 170; my emphasis)

Therefore, the statement that what appears merely a means, another means, is indeed an end and, to be more precise, an internal end implies that the means and the end are not related as self-sufficient realities, reciprocally external, but, on the contrary, as interpenetrating realities, for there are only ends where there are means that achieve them. It is when we interpret that statement as a solution, that is, not as the formulation of the original problem, and, furthermore, not as if the meaning were that there are means that have the extraordinary peculiarity of offering themselves immediately to the realization of ends, but, on the contrary, expressing that *there are only mediated realizations (instances) of ends*, ends that do not pre-exist to the processes of their effective realization, when we abandon a model, the general model of external purposiveness, to embrace a different one. A means that serves an external end is an object or process that does not have an end in itself. By contrast, a means that produces itself is a means that has an end of its own. In these terms we make sense of the thought that internal teleological relations constitute the 'truth' of external teleological relations.

According to the new model, it may well be said that the parts of a whole—of a whole of activity—exist and have the shape they have because they cause a certain effect. In this sense, both in the argument and the conclusion, 'Teleology' confronts the problems that underlie the Kantian dialectic of teleological judgement. There is no hiatus, no discontinuity, between the introduction of the chapter, with its references to the antinomy, and the argument from 'The subjective purpose' to 'The realized purpose' in 'Teleology'. It is therefore untrue that Kant's dialectic of teleology is solved, if at all, only in the next chapter, 'Life', in the section on 'The Idea', not before, or elsewhere in Hegel's encyclopaedic system, but not in 'Teleology'.

Hegel's solution, namely the perspective introduced by the 'overturn', can be compared with some contemporary ideas on purposiveness. In particular, I think it can be usefully compared to Larry Wright's influential concept of 'function', as developed in his famous 1973 essay on 'Functions'. Wright holds that the fact that something, an *X*, has the function *Y* has a teleological meaning. If *X* has the function *Y*, then *X* has a purpose which is *Y*, and *X* is where it is in order to do *Y*. In his account, this fundamental teleological concept implies, first of all, that '*X* exists because it does *Y*', where 'because' has a causal meaning, as is often the case in ordinary contexts. Hegel's conception of purpose is, like Wright's, an etiological conception. What Hegel does in the conclusion of his argument in 'Teleology', like Wright in his analysis, is to explain the teleological character of the means as effect of the fact that in *Y*, i.e. in what *X* does, the explanation of the existence of *X* is to be sought. In Hegel's terms, if the end is the means, then the means exists because it produces the end. Furthermore, Wright adds that, for a complete account, it is essential to make explicit that *X*, the means, has *Y* as a consequence. In this way, the actual, objective circle is closed, which, also according to Hegel, makes it pertinent to speak of means that have ends and, therefore, of ends at all, in and for themselves, in absolute terms.

The key aspects of my reading of Hegel's text can now be summed up in the following five points:

- (1) 'Teleology' contains a general argument about the meaning and value of the concepts of end (as purpose) and means. (The discussion first of 'subjective ends' and the premise that 'purposiveness is the truth of mechanism' should not obscure this fact.)
- (2) In the chapter, what Hegel regards as the 'essential question' is resolved, namely: if mechanical or efficient causality is the truth of what seems to have an end or, conversely, teleological or final causality (of a particular kind) is the truth of what has a certain material constitution of mechanical parts that work as common causes when they function in a certain way (namely each one causing all the others).
- (3) The argument is epitomized in the sentence: *the means is the end*. A 'reflection' that effects an interpretive shift transforms the meaning of this sentence. It does not mean now that instead of ends we only find means, it means instead that through the production of a means an end is realized.
- (4) The argument starts by assuming that the relations between ends and means are external. It then shows that if they are only external, the means do not realize ends in themselves. The argument concludes that means realize ends if, when, they 'realize' themselves. In this

case, the end they serve is their own existence—or, to use the Kantian formula, the means-end is cause and effect of itself.

- (5) The final ‘overturn’ brings with it a change of ‘model’. But the change does not entail that there are things whose teleology is not the teleology of intentions, but that there are only ends where there are means that are ends. Thus, the model of self-production is, according to *WdL*, the model of all teleology.

III. Implications inside and outside the *Logic*

The fact that Hegel discusses and establishes in the chapter on ‘Teleology’ the meaning of the concepts of end and means, before subsequently dealing with ‘Life’ and ‘The Idea of Cognition’, is by no means a trivial one, but its importance has not been fully recognized, as far as I know, in the literature. The reasons for this, at least in part, are those that have led to ‘Teleology’ not having been taken seriously. Since the argument of the chapter is difficult to identify and often dismissed as irrelevant or inconclusive, the reception has not reflected on the impact it may have on the rest of the *Logic* and the rest of the system. Furthermore, it might seem inconsequential that the case for the concepts of end and means appear in that chapter and not in the next, for the divisions in the *Logic*, as Hegel concedes, are somewhat artificial and the general argument is supposed to be only one. However, it has at least, in my opinion, two kinds of implications. In the first place, it has implications for the idea of natural teleology, that is, for the particular issue that Kant raises with regard to the concept of cause and effect of itself in *KU*. Second, it has implications for the *Logic* as a whole, that is, for other logical matters and for the main argument of *WdL*. In this final section, I would like to highlight a few of these implications in order to reinforce my claim that the chapter deserves a recognition it has not received thus far.

III.i. Implications for a natural teleology and the concept of biological function

As we have seen, Kant considers the concept of cause and effect of itself inappropriate, as it seems to him that it is not possible to be both cause and effect in the same sense at the same time, and also indeterminate, because in different ways something can be said, even if in such an inappropriate sense, that is cause and effect of itself. However, according to my reconstruction, Hegel believes that something can be properly said to be cause and effect of itself, since a process whose result is the activity in which it consists is cause and effect of itself, so that, as a consequence, there is no fundamental ambiguity in the concept, rather a single monosemic notion. The fact that an objective end, in Hegel's words, is

a process in which the means—an objective means operating on an objectivity that is in principle indifferent to ends—is the end, in abstract terms, means that the concept makes sense in itself. The concept would allow, arguably, to distinguish genuine teleological processes from processes that are not strictly such.

The chapter on ‘Life’ in *WdL* confirms this utility of the concept of *Zweck*, even more so do the parts dedicated to organisms in general and living beings in particular in the *Philosophy of Nature*. In ‘Life’, Hegel discusses what Kant—following Buffon and, ultimately, Aristotle—conceives as processes characteristic of natural organized beings: configuration, assimilation and procreation, although, again, in abstract terms, that is, as processes that can be carried out in nature, but can also have a spiritual instantiation.¹⁵ What is then established about the concept of an end, an internal end, serves to understand what the realization of a concept is and what is not, and where it can be verified. And then, the consequences that are drawn in ‘Life’ are projected onto the *Philosophy of Nature*.

To put it briefly, the first two processes are indeed teleological processes for Hegel, but the third is not. The self-organization of the organized being, that is, the mutual support of its different parts and the regeneration processes based on assimilation—a material renewal for which an indifferent objectivity is given the form of the organism—are both purposive processes in which a realized end causes itself. In contrast, in the process that Hegel calls ‘process of the genus’ (which includes much more than mating and sexual reproduction, but essentially these), ‘the same’ is not produced—if anything, something of the same ‘species’ and, actually, simply something more or less similar to existing individuals. So, in accordance with the life sciences of Hegel’s time, ignorant of Mendel’s laws of inheritance, not to mention their biochemical foundations, that is, pre-genetic, Hegel infers that the genus process is not teleological. It is, in Hegel’s eyes, a process essentially subjected to exteriority and accident, by which new forms constantly emerge, and not a process that has a specific, internal purpose, given that, according to Hegel, even particular (‘empirical’) species do not cause themselves.¹⁶

As a consequence, in the logical condition (or requirement) that ‘*X* exists because it does *Y*’ or, in Hegel’s terms, ‘the means (*M*) exists because it produces the end (*E*)’, the second verb does not have to be interpreted according to a particular temporal inflection. If *M* exists because it produces *E* in the relevant etiological-teleological sense, then *M* exists because ‘now’ it has a certain effect or consequence. It does not mean, then, that it often produced it *in the past*, and it does not mean either that some particular *M* produced *E in the past*. Only if an *M* exists currently because it currently produces *E*, a certain *E*, the said *M* has an end. *M*, *E* and the production of one by the other cannot be distributed in time, when it comes to meeting the requirements of teleology. The case for an abstract concept of purpose implies that purposiveness is not built upon certain historical facts.

This inference has implications for the concept of biological function. An entirely abstract concept of teleology can help, it seems to me, in the definition of a unitary concept of biological function, one that takes into account the inner organic configuration *and* the development *and* the reproduction by procreation of living beings, that is, everything that has the appearance of teleology in organisms. Attempts to define a unitary concept of biological function have often been rather reductionist. They have assumed that only one kind of 'reproduction' justifies speaking properly about functions. But this reductionism is alien to Hegel, since his argument on teleology does not have a particular temporal inflection.

The concept I call abstract puts, in my opinion, due emphasis on the identity of cause and effect. The identical and teleological is a form, of course, not some matter. Thus, there is nothing in the contemporary evolutionary etiological concept that is at odds with this abstract concept. A phenotype can be considered a means that basic biochemical forms use in order to cause themselves. The concept of 'selfish gene', of self-productive gene, thus fits into Hegel's model of teleology.¹⁷ His is not an organizational concept of teleology. It is simply a concept that may ground an organizational concept, but also some others.¹⁸

III.ii. Implications for the logical ideas of natural life and spiritual life

The results of 'Teleology' are not only important for the teleological judgment of natural processes. They are also important in the *Logic*. As I have already pointed out, Hegel calls the concept that has given itself objectivity an 'idea'. He distinguishes simple representations from 'ideas' appealing to that self-wrought objectivity. The location of 'Teleology' suggests, I think, that the objectivity of 'The Idea', throughout the entire section, has the form of a teleological process. Objective concepts give themselves objectivity as ends, which has consequences for Hegel's conceptual realism. Of objects that realize an end, that are a realized purpose, we have ideas. Of objects that do not, we cannot have but simple representations or relative, conditional concepts.¹⁹

The consequences are laid out in the different chapters of 'The Idea', dedicated to different kinds of life, which are different ways of being an end in and for itself. The first of these chapters, 'Life', deals with life realized in a mechanical element. The second, 'The Idea of Cognition', with spiritual life, which is a life realized in a medium that is no longer mechanical. An immediate implication of the results of 'Teleology' is that both non-spiritual life and spiritual life are a form of purposiveness. Not just that there is purposiveness in non-spiritual nature and also in spirit, but that both nature and spirit are an end, and not a relative end, but an end for themselves. Thus, thanks to an entirely abstract concept of end (or purposiveness), we can have an adequate concept, a teleological one, of nature and spirit.

If there is an adequate concept of nature, even though nature is, in principle, the realm of exteriority, necessity and contingency, it is owing to the fact that exteriority, necessity and contingency offer themselves to the realization of ends. They do not oppose, nor can they oppose, resistance to objective ends by themselves. Hence, in nature we have both necessity and purpose—in this respect, Hegel follows Aristotle. Like Aristotle, Hegel understands nature as a principle of self-motion. Natural is, more than anything else, what moves itself with a view to an end.

The other implication of the defence of an entirely abstract concept in the *Logic* is that the teleology of spirit must obey the same, Hegel's only model of self-causation. There is textual evidence, again, that this is the case in *WdL*: for one thing, the syllogism of realization in 'The Idea of the Good' is *formally identical* to the syllogism of purposiveness (see *GW* 12: 232). Therefore, spirit too has no intrinsic end outside itself. The purpose of spirit is its own existence, its own objectivity. It has no other ends in and for itself. It follows that spirit, like the animal, does not become what it is at some point. Spirit is what it is from the beginning. It cannot realize an end that has not yet been realized, which is not as much realized as it is its true end.

A third implication of 'The Idea' is that nature and spirit are not distinguished by the form nor the content of their purpose. Not because of them; rather, because of the objective element in which they, as purposes, are carried out. Hegel is also explicit about this distinction. Yet, as with the other consequences of my argument, I cannot explore this contrast any further. However, these brief final notes will suffice, I hope, to confirm the remarkable significance that 'Teleology' has, contrary to the widespread opinion, in the edifice of Hegel's system of philosophical sciences.²⁰

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Notes

¹ I will use these abbreviations:

AA = Kant, *Kant's gesammelte Schriften*, ed. Königlich Preußische Akademie der Wissenschaften (Berlin: de Gruyter, 1900 ff.) (indicating volume and page).

GW = Hegel, *Gesammelte Werke*, ed. Nordrhein-Westfälische Akademie der Wissenschaften (Hamburg: Meiner, 1968 ff.) (indicating volume and page).

Hegel's Case for Means and Ends

KU = Kant, *Critik der Urtheilskraft* (1790) in *AA* 5.

TW = Hegel, *Werke in zwanzig Bänden*, ed. E. Moldenhauer and K. M. Michel (Frankfurt: Suhrkamp, 1970) (indicating volume and page).

WdL = Hegel, *Die Wissenschaft der Logik*, 3 vols., 1812, 1813, 1816, in *GW* 11–12.

² The last four chapters of *WdL* are: ‘Teleology’, ‘Life’, ‘The Idea of Cognition’ and ‘The Absolute Idea’. ‘Teleology’ is the third chapter of ‘Objectivity’, the penultimate section of the work. The last three chapters make up the final section, entitled ‘The Idea’.

³ Classical examples of interpretations in terms of spiritual topics are D’Hondt 1970 and Lamb 1987.

⁴ Exceptions are readings that treat it as if it recapitulated previous logical lessons; see Yeomans 2012 and Ng 2020. There are other clearly constructive readings, such as Fulda 2003, Stekeler-Weithofer 2005 and Pierini 2006, which, nonetheless, I find objectionable. In my opinion, Fulda has done the best job contextualizing the topics of ‘Teleology’. However, he considers that the ‘logic of the inner end’ is still a pending issue at the end of ‘Teleology’ (2003: 147), against what I shall defend here.

⁵ In the ‘Logic for the *Mittelklasse*’ of 1810–11 the second section of the ‘Subjective Logic’ is entirely devoted to ‘The purpose or the teleological concept’ and, although with another title, the same occurs in the ‘Doctrine of the concept for the *Oberklasse*’ from 1809–10.

⁶ Findlay (1964) succeeded in showing this, in my opinion.

⁷ See e.g., *GW* 20: 361, 363–65 [§360, §365R]. Cf. *GW* 14.1: 35 [§8 f.].

⁸ In all this I am with Fulda (see 2003: 136–41), against widespread assumptions.

⁹ One may think that nothing abstract or general of any value can be said about it. Indeed, critics of the metaphysical tradition have questioned this. But the reception to which I refer does not raise this kind of objection, rather others.

¹⁰ In the introduction to ‘Teleology’ Hegel assimilates the antinomy of reason concerning causality (the ‘Third Antinomy’) to the antinomy of teleological judgement (*GW* 12: 154, 157 f.). He implies that the same pure thought-determinations oppose in both ‘conflicts’ (see *GW* 11: 114). This assumption is of course controversial—a non-Kantian premise. In my view, the underlying pure concepts are the concept of final cause (or *Zweck*) and the concept of efficient cause (which is for Hegel the meaning of *Ursache* without qualifications). The interest of *KU* and ‘natural ends’ at this point in *WdL* relates to this peculiar understanding.

¹¹ If the purpose of this paper were to understand the inspiration for Hegel’s position, it would be convenient to explain and discuss Kant’s in some detail. Whatever we think of Kant, we should admit that Hegel believes that Kant has not resolved this contradiction and that *WdL* exposes this contradiction in order to then show how it needs to be superseded. Obviously, a general argument about the correct way to understand the conceptual progress in *WdL* does not fit here either.

¹² The latter would be a maxim of judgement, while the former would be, first of all, a principle of understanding.

¹³ Ginsborg (2006: 457) has advocated a reading of the ‘Analytic of the Teleological Judgement’ in *KU* along these lines.

¹⁴ The comparison with Zeno’s paradoxes is not arbitrary (see *GW* 11: 120). Hegel argues that Kant’s antinomies, from a logical point of view, are particular cases of the dialectic of the concepts of finitude and infinity (*GW* 11: 147).

¹⁵ We could also speak of organization, development and reproduction, even if ‘reproduction’ has an ambiguous meaning and, actually, as the *Encyclopaedia* shows (see McLaughlin 2001), it did not mean in the early nineteenth century ‘procreation’. In Hegel’s idiom, ‘reproduction’ is rather related to organization and nurture and self-repair.

¹⁶ I have argued in Maraguat (forthcoming) that ‘empirical species’ are not considered by Hegel reproducing individuals.

¹⁷ For the connection between ‘selfish genes’ and inner teleology, I recommend Haig 2020.

¹⁸ Guided by what Hegel actually claims about the functions of animal organs, I have argued elsewhere that he favours an organizational concept of natural organic functions (Maraguat 2020). Through the present argument this statement is qualified, rather than contradicted.

¹⁹ Hegel distinguishes ideas *from* concepts *from* (simple) representations. Yet, concepts which are not ideas are ‘restricted determinations’ (also called ‘determinations of the understanding’) or abstractions and, ultimately, inadequate, non-objective concepts (*GW* 20: 74 f. [§62]; see also *GW* 20: 161, 165 [§162, §164]).

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