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Hegel's modal argument against Spinozism.

An interpretation of the chapter 'Actuality' in the *Science of Logic*

I propose a new reading of Hegel's discussion of modality in the 'Actuality' chapter of the *Science of Logic*. On this reading, the main purpose of the chapter is a critical engagement with Spinoza's modal metaphysics. Hegel first reconstructs a rationalist line of thought – corresponding to the cosmological argument for the existence of God – that ultimately leads to Spinozist necessitarianism. He then presents a reductio argument against necessitarianism, contending that as a consequence of necessitarianism, no adequate explanatory accounts of facts about finite reality can be given.

There can be no doubt that issues about modality are at the very heart of Hegel's philosophical enterprise. His views about the rational and monistic structure of reality, about nature and history, and about the nature of scientific (in particular, philosophical) reasoning all turn upon questions that concern the nature and the metaphysics of necessity, actuality, and possibility. Yet notwithstanding its importance for Hegel's thought, we are far away from a detailed understanding of his views about modality. In particular, Hegel's most extended discussion of modality, the chapter on 'Actuality' in the *Science of Logic*, has generally been misunderstood – or so I shall argue in this paper.¹

My aim is to offer an interpretation of this chapter that substantially differs from extant readings both with regard to important details of Hegel's argument, and with regard to the very purpose that I ascribe to the entire chapter. Usually, the chapter is read as being primarily

a presentation of Hegel's *positive* views about modality.² In particular, it has often been claimed that Hegel introduces his positive account of necessity and contingency in this chapter – an account on which the necessity that governs reality requires the world to include contingent aspects.³ By contrast, I will try to show that the overall intent of the chapter is *critical*, and that the primary target of Hegel's critique is *Spinoza*.⁴ On the reading that I will propose, the overall function of the chapter is to provide a critical assessment of the modal metaphysics of Spinozism.⁵

The central tenet of Spinoza's modal metaphysics is (at least on one very influential reading) the doctrine of *necessitarianism* – the view that all truths are necessary truths.⁶ As I will reconstruct it, the modality chapter culminates in an argument of Spinozist necessitarianism.⁷ This argument attempts to show that necessitarianism undermines the rationalist view of reality as thoroughly explainable which it is itself based on. The resulting critique of necessitarianism constitutes an essential element of Hegel's engagement with Spinozism – an element which has been unduly neglected by extant accounts of Hegel's critical reception of Spinoza.⁸

Hegel's chapter on modality falls into three sections, which correspond to three types of modality that Hegel distinguishes: 'formal', 'real', and 'absolute' modality. For the reading that I shall develop here, the third section, 'Absolute necessity', is the most important one: as I shall suggest, it is here that Hegel presents his argument against Spinoza's necessitarianism. But in order to make the case for my reading, I will also have to address the other two sections. The section on absolute modality is closely linked to the preceding discussion of formal and real modality, and therefore can only adequately be discussed if an interpretation of those other sections is in place. In particular, I will single out elements in the discussions of formal and real modality that show how these sections together constitute a line of thought leading to necessitarianism – a line of thought that mirrors the *cosmological argument* for the existence of God.

The paper is organized as follows. Sections I and II are dedicated to Hegel's discussion of formal and real modality in the first two sections of the modality chapter. Section III provides a preliminary discussion of Hegel's notion of absolute modality. As I go on to argue in section IV, this notion can only be adequately understood if it is seen in the context of the cosmological argument and of Spinozism. On this basis, I will reconstruct Hegel's argument against necessitarianism in section V. – The textual case for my reading of the overarching function of the chapter (sections IV and V) rests on the interpretation that I give for Hegel's discussion of the different types of modality in sections I-III. I therefore must ask the reader to bear with me while I go through this discussion, even though I will be able to address the actual purpose of Hegel's analyses only in the later sections of the paper.

Some preliminary remarks are in place. First, it is crucial to see how strong a claim necessitarianism is, and in particular, that it is a much stronger claim than *determinism*, with which it is sometimes confused. Determinists hold (on one, sufficiently representative, interpretation) that the state of the world at a particular point of time is entailed by the conjunction of the laws of nature, and the state of the world at any point of time in the past. As advocates of compatibilist views about free will have traditionally argued, determinism does not entirely exclude contingency from reality. For determinism leaves open the possibility that the past and/or the laws of nature could have been different. Therefore, every actual state and event in the world could have been different in the conditional sense that it *would* have been different, *had* there been another past and/or other laws of nature. By contrast, necessitarianism does not leave room for such compatibilist manoeuvres, as it rejects every objective contingency. According to necessitarianism, *everything*, including the past and the laws of nature, is necessary; and nothing – not even the past and the laws of nature – could have been any other way than it actually is. (In other words, there are no unactualized possibilities.)

Second, for the sake of clarity, I will state formalized versions of Hegel's claims throughout my discussion. The notation that I use includes the common modal operators '□' for necessity and '◇' for possibility, plus the additional operator '○' for actuality (which Hegel treats as a modality in its own right). Both in formalizations and in plain talk, subscripts ('possible_{formal}', '◇_{formal}' etc.) will serve to specify the relevant type of modality. '→' stands for the material conditional, '↔' for the material biconditional.

Finally, Hegel is not clear about whether his modal operators apply to proposition-like entities or to individuals. For the sake of simplicity, I will almost always treat his modal notions as propositional operators (which is the reading that usually fits best what he says), apart from one case which I will explicitly flag.

I. Formal modality

In accordance with his overall approach in the *Science of Logic*, Hegel structures his discussion of formal modality – as well as that of real and absolute modality – as a conceptual development that is not imposed by an external order, but is 'immanent' to the very categories at stake. This procedure leads Hegel to affirm very tight logical relations between different modal categories. Indeed, it is common to read Hegel's account of formal modality as implying that the formal modalities – formal possibility, actuality, and necessity – are coextensional.⁹ This implication contains the claim that everything that is formally actual is also formally necessary – and hence, necessitarianism with regard to formal modality. However, readings along this line face the problem that Hegel's discussion of formal modality *also* includes statements implying that there are contingent facts – facts whose contrary is formally possible, too.¹⁰ I therefore will pursue an alternative approach in the following discussion, and introduce a series of disambiguations which allow to understand Hegel's formal modalities as extensionally disjoint (and hence, as non-necessitarian).

1. From actuality to formal possibility

Hegel's 'formal' modality consists in a system of logical concepts that can be defined on the basis of propositional truth and logical consistency alone. It therefore corresponds to what is usually (both in the tradition and today) called 'logical' modality. The starting point for Hegel's account of formal modality is the notion of actuality (sans phrase), understood as 'nothing more than a *being*, or concrete *existence* in general' (SL 11:381.31f./478). This is a broad, unqualified sense of actuality (as opposed to a specifically 'formal' notion of actuality which Hegel will later introduce.) For the purpose of formalization, the broad sense of actuality (' \circ ' without subscript) can be treated as equivalent to propositional truth ($\circ p \leftrightarrow p$).

On the basis of this notion of actuality, Hegel introduces a first notion of possibility_{formal} through the following inference rule: '*What is actual is possible*' (SL 11:381.35/478). In formalized terms:

$$(1) \circ p \rightarrow \diamond_{\text{formal}} p$$

The notion of possibility_{formal} is further specified by the following two-fold characterization, which will prove important for Hegel's subsequent discussion: 'Possibility includes, therefore, *two* moments. It has first the positive moment of being a being-reflected-into-itself', and, second, 'the *negative* meaning that possibility is ... something deficient, that it points to an other, to actuality, and is completed in this other.' (SL 11:382.6-11/479) I shall discuss both aspects in turn.

a. Hegel identifies the first or 'positive' aspect of formal possibility with consistency, or logical possibility: 'In this formal sense of possibility, *everything is possible that does not contradict itself*; the realm of possibility is therefore limitless manifoldness.' (SL 11:14-6/479) Thus, logical possibility constitutes *one* sense of formal possibility; for the sake of univocity, I will use the term 'possibility_{logical}' ($\diamond_{\text{logical}}$) to refer to possibility in this sense. Put formally (' \perp ' stands for any logical contradiction):

$$(2) \diamond_{\text{logical}} p \leftrightarrow \sim(p \rightarrow \perp)$$

In the *Encyclopedia Logic*, Hegel points out that possibility in this sense is an ‘insufficient abstraction, something that, taken more concretely, pertains only to subjective thinking.’ (Enc. §143 Rem., 165.11f./213) For Hegel, such possibility is neither ontologically substantive, nor is insight into it of any proper epistemological value.¹¹

b. The *negative* aspect of formal possibility consists, according to Hegel, in the fact that what is (in *some* sense) formally possible is *merely* possible, and thus points to something else which complements it.¹² In the above-quoted summary of the distinction between both aspects, Hegel says that the merely possible is complemented by the *actual*. In this sense – which I will refer to as ‘unactualized possibility’ ($\diamond_{\text{unactualized}}$) –, something is ‘merely possible’ iff it is ‘possible but not actual’ (where the ‘possible’ in ‘possible but not actual’ ought to be read as ‘possible_{logical}’, as no other relevant sense is yet available):

$$(3) \diamond_{\text{unactualized}} p \leftrightarrow \diamond_{\text{logical}} p \ \& \ \sim \circ p$$

However, Hegel uses yet another notion of ‘mere possibility’ in his subsequent discussion.

This notion comes up first when Hegel points out: ‘because this content [sc. of which possibility is predicated] is only a possible, an *other* opposite to it is equally *possible*. ‘A is A’; then, too, ‘– A is – A’.’ (SL 11:383.5-7/480) Something is merely possible in *this* sense iff its contradictory is (logically) possible, too. I will refer to this kind of ‘mere possibility’ as ‘two-sided possibility’ ($\diamond_{\text{two-sided}}$). Two-sided possibility can be spelt out as follows:

$$(4) \diamond_{\text{two-sided}} p \leftrightarrow \diamond_{\text{logical}} p \ \& \ \diamond_{\text{logical}} \sim p$$

Note that this entails the following:¹³

$$(5) \diamond_{\text{two-sided}} p \leftrightarrow \diamond_{\text{two-sided}} \sim p$$

As it turns out, Hegel’s notion of possibility_{formal} is ambiguous between the distinct senses of possibility_{logical}, possibility_{unactualized}, and possibility_{two-sided}.¹⁴ The above proposition (1) holds only for possibility_{logical}, and should therefore be specified as follows:

$$(1^*) \circ p \rightarrow \diamond_{\text{logical}} p.$$

3. From formal possibility to formal actuality

Having introduced the two aspects of formal possibility (i.e., possibility_{logical} and mere possibility, which in turn comprises possibility_{unactualized} and possibility_{two-sided}), Hegel's argument takes a rather surprising twist. For Hegel seems to be claiming now that in some sense the converse of (1*) (actuality entails formal possibility) is true, too – that in some sense, *formal possibility entails actuality*. As Hegel points out: 'But this connection, in which the one possible also contains its other, is as such a contradiction that resolves itself. Now, since it is determined to be reflective and, as we have just seen, reflectively self-sublating, it is also therefore an immediate and it consequently becomes *actuality*.' (SL 11:383.15-8/480)

Hegel seems to say here the following¹⁵:

$$(6) \diamond_{\text{two-sided}} p \rightarrow \circ p$$

But given Hegel's account of possibility_{two-sided}, this claim would lead to a contradiction: taken together, (5) and (6) imply that the possibility_{two-sided} of p entails the actuality both of p and of $\sim p$.

The passage becomes less mysterious if it is interpreted as claiming that the possibility_{two-sided} of a content entails the actuality not of that same content, but of *some* relevant content. If p is possible_{two-sided}, both p and $\sim p$ are possible_{logical}. But they cannot both be unactualized, as it follows from the law of the excluded middle that either p or $\sim p$ *must* be actual. Hence (' \vee ' stands for exclusive disjunction):

$$(7) \diamond_{\text{two-sided}} p \rightarrow \circ p \vee \circ \sim p$$

Thus, '[e]verything possible has therefore in general a *being* or a *concrete existence*' (SL 11:383.34f./480) *insofar* as for everything that is possible_{two-sided}, either itself *or its contradictory* is actual.¹⁶

At the same time, Hegel introduces here a new, specifically *formal* notion of *actuality*. The broad sense of actuality that Hegel has used so far is compatible with the kind of

necessity that is complementary to possibility_{logical}. Hegel does not explicitly introduce this notion, but it can easily be defined as follows:

$$(8) \quad \Box_{\text{logical}} p \leftrightarrow \sim \Diamond_{\text{logical}} \sim p$$

By contrast, Hegel uses the connection between possibility_{two-sided} and actuality that is expressed in (7) to define another, more restricted notion of actuality, which implies the logical possibility of the contrary, and hence does exclude logical necessity. He characterizes this form of actuality, which can be called *formal* actuality, as follows: ‘This actuality_[formal] is not the first actuality [i.e. actuality in the broad sense] but reflected actuality, *posited as unity of itself and possibility*. What is actual [sc. in the broad sense] is as such possible_[logical]; it is in immediate positive identity with possibility_[logical]; but the latter has determined itself as *mere* [i.e. two-sided] *possibility*; consequently the actual_[formal] is also determined *as something merely possible* [i.e. possible_{two-sided}]’ (SL 11:383.19-23/480) – i.e.:

$$(9) \quad \circ_{\text{formal}} p \leftrightarrow \circ p \ \& \ \Diamond_{\text{two-sided}} p.$$

4. Contingency, necessity and the PSR

According to (9), formal actuality is a conjunction of actuality in the broad sense, and possibility_{two-sided}. This explains why Hegel talks about a *unity of actuality and possibility* in this context – a unity that he characterizes as *contingency* (*Zufälligkeit*). His definition of contingency shows that it is modally equivalent to formal actuality: ‘The contingent is an actual which is at the same time determined as merely possible’ (SL 11:383.36f./480).¹⁷

Thus, the notion of contingency does not by itself introduce a new modal operator. Rather, it serves to highlight a particular *explanatory* status. Hegel characterizes this explanatory status in a seemingly paradoxical manner: by characterizing something as contingent, we imply at the same time that it is groundless, *and* that it depends on something else (SL 11:384.17f./481).¹⁸ This claim can be understood as follows. The contingent is groundless or undetermined because it could have been otherwise just as well – at least as a

logical possibility. Yet since it *could have* been otherwise but actually *is not* otherwise, there must be a factor which makes it the case that the contingent is *this way* and not *otherwise* – a factor which *necessitates* the contingent: ‘The contingent is therefore necessary because the actual is determined as a possible; its immediacy is consequently sublated and is repelled into the *ground* or the *in-itself*, and into the *grounded*’ (SL 11:385.2-4/481).

It is crucial to realize that the relevant notion of necessity is not the complement of possibility_{logical}, i.e. necessity_{logical} as defined in (8): the contingent clearly cannot be necessary in *that* sense.¹⁹ Rather, the necessity Hegel is speaking of at the end of the section on formal modality is the *weaker* necessity with which a *ground* (e.g., a cause, a law of nature) makes it the case that from two contradictorily opposed, equally possible_{logical} states of affairs one rather than the other is actual.²⁰

Hegel will further elucidate this notion of necessity (together with corresponding notions of possibility and actuality) in the subsequent section on *real* modality. For the moment, it is only important to note that Hegel’s discussion of contingency and necessity at the end of the section on formal modality relies on the following view: everything which is *formally actual* (hence, both actual and possible_{two-sided}) is *contingent*, and therefore (given Hegel’s comments on contingency) also *necessary* qua being dependent on a ground. This is equivalent to the view that there are no contingent facts which are simply groundless – or, in other words, that there are no brute facts: a claim that is well-known as the *Principle of Sufficient Reason* (PSR). Hence, the transition from formal to real modality implicitly presupposes the PSR. We will come back later in much more detail to the role that the PSR plays in Hegel’s discussion; in particular, I will argue that the PSR figures here as part of a position that Hegel is criticizing, rather than as a principle that he would himself endorse. But for the time being, we should merely take note that Hegel is reconstructing a system of modal concepts which relies at least partly on the PSR.

The following diagram summarizes the extensional relations between the different formal modalities:

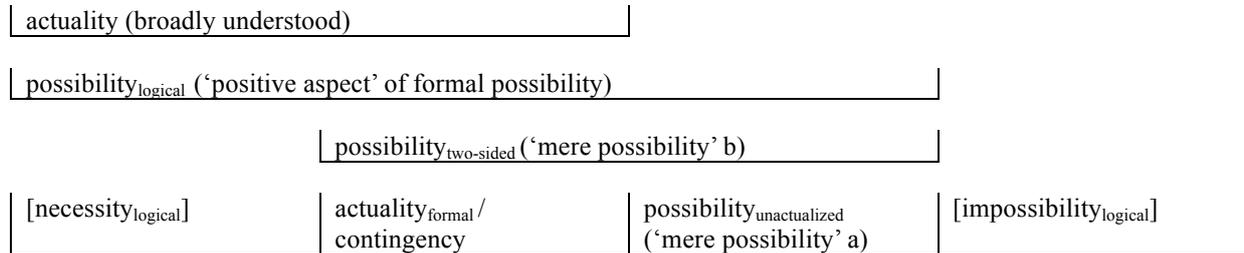


Fig. 1: Hegel's 'formal' modalities

As the diagram illustrates, the disambiguations that I have introduced allow to see Hegel's formal modalities as not being coextensional. In particular, none of the two types of actuality that figure in this context is coextensional with necessity (as the necessitarian readings that I mentioned at the outset of this section would have it).

II. Real modality

Real modality belongs to processes in the empirical world: 'Real actuality is *as such* at first the thing of many properties, the concretely existing world' (SL 11:385.30f./482). Hegel uses metaphysical categories which he had discussed earlier on in the *Science of Logic* (a world which consists of reciprocally interacting *things* with dispositional *properties*) in order to characterize the actual_{real} as a system which is articulated by processes of *efficiency*: 'What is actual *can act*; something announces its actuality *by what it produces*.' (SL 11:385.34-386.1/482) These processes of efficiency consist of ground-consequence-relations, which form the metaphysical basis of the 'real' modalities.

The account of real modality that Hegel goes on to present combines this idea with the view, introduced at the end of the section of formal modality and motivated by the PSR, that whatever is logically contingent is necessary in so far as it is necessitated by a ground. On the

resulting view, an object or state of affairs is possible_{real} if and only if its necessary and jointly sufficient conditions are given. In this case, it cannot fail to be actual_{real}, and hence, is also necessary_{real}: ‘[W]hat is really possible can no longer be otherwise; under the given conditions and circumstances, nothing else can take place. Real possibility and necessity are, therefore, only *apparently* distinguished.’ (SL 11:388.13-6/484)²¹ It follows that the real modalities, unlike the formal modalities, are coextensional:²²

$$(10) \diamond_{\text{real}} p \leftrightarrow \circ_{\text{real}} p \leftrightarrow \square_{\text{real}} p$$

Like the section on formal modality, Hegel’s discussion of real modality concludes by addressing the issue of *contingency*. Within the framework of real modality, contingency occurs insofar as real necessity is a *relative* form of necessity: ‘[T]his necessity is at the same time *relative*. – For it has a *presupposition* from which it begins; it takes its *start* from the *contingent*.’ (SL 11:388.21-23/484) The notion of a ‘relative’ or ‘hypothetical’ necessity is familiar from Leibniz’s compatibilist treatment of free will. It stands for the necessity of a conditional connection ($\square(p \rightarrow q)$), whose antecedens may obtain or not.

Hegel’s point seems to be very similar. Necessity_{real} is the necessity with which something occurs *if* conditions are given that are jointly sufficient for it. But first, it is not necessarily the case *that* the conditions obtain: the entire process could have been different all along. Second, possibility_{real} (together with the coextensional notions of actuality_{real} and necessity_{real}) requires compatibility with material constraints that derive from the existing natural kinds, and the laws of nature that follow from them.²³ In his 1817 lectures on ‘Logic and Metaphysics’, Hegel gives this example: ‘A flying horse is not impossible, can be thought. *In relation to the air* it is impossible that a horse qua horse can fly, hence an impossibility here as well.’²⁴ The reason why the horse cannot fly (at least under normal conditions on the earth) is that the natural kinds AIR and HORSE have properties (e.g. the relative density of air, the typical weight of a horse, the absence of a structural basis – such as

wings – that could enable horses to fly) which, other things being equal, entail that horses cannot fly. But there could be different natural kinds than there actually are.

III. Absolute modality

Absolute modality is introduced as the counterpart to the *relative* modality that real modality turned out to be in the end. The actual_{absolute} is ‘an actuality which can no longer be otherwise, for its *in-itself* is not possibility but necessity itself.’ (SL 11:389.29f./486)²⁵ The necessity_{absolute} which is contained in actuality_{absolute} is not relative to contingent factors, and therefore not conditioned by anything external to it, but grounded in itself: ‘*It is ... because it is.*’ (SL 11:391.14/487)

The interpretation of Hegel’s absolute modality is complicated by the fact that Hegel, as I have mentioned earlier, does not clearly distinguish between individuals and proposition-like entities as arguments of modal operators. Hegel’s earlier modal notions were most naturally read as operators that have proposition-like entities as their arguments. The case of necessity_{absolute} seems to be different. In Hegel’s framework, predicating necessity_{absolute} of a proposition *p* would be equivalent to saying that *p* is necessary_{logical}. That necessity_{absolute} requires more than that is clear from the following passage: ‘The category of absolutely necessary being involves the necessity partly of its being and partly of its determinations of content.’ (LPEG 323.19-21/153) The necessity_{logical} of a proposition does not ipso facto imply that something necessarily exists (‘necessity ... of its being’). By contrast, both the necessity of ‘determinations of content’ and necessary existence naturally follow if necessity_{absolute} is understood as predicated of *individuals*.²⁶ On this reading, predicating necessity_{absolute} of an individual *a* entails, *first*, that *a* necessarily exists,²⁷ and *second*, that (possession of Cambridge properties and similar issues apart) everything that is true of *a* (its ‘determinations of content’) is necessarily true (the necessary_{absolute} ‘cannot be otherwise’).

We can formulate both points together in terms of second-order logic (with ‘ X ’ as a predicate variable that ranges over a ’s genuine properties and its existence):

$$(11) \text{nec}_{\text{absolute}} a \leftrightarrow \forall X(Xa \rightarrow \Box_{\text{logical}} Xa)$$

Once these implications of Hegel’s notion of necessity_{absolute} are appreciated, we can, for the sake of convenience, define a propositional necessity-operator ‘ \Box_{absolute} ’ that matches $\text{nec}_{\text{absolute}}$ in modal strength. To do so, it is enough to stipulate that the same entailment as in (11) holds with regard to the logical subject of the necessary_{absolute} proposition:

$$(12) \Box_{\text{absolute}} Pa \leftrightarrow \Box_{\text{logical}} Pa \ \& \ \forall X(\sim(X=P) \rightarrow (Xa \rightarrow \Box_{\text{logical}} Xa))$$

Moreover, it is clear from Hegel’s discussion that he regards necessity_{absolute} and actuality_{absolute} as equivalent notions. Actuality_{absolute} is a form of actuality that ‘can no longer be otherwise’, and its ‘in-itself’, or essence, is necessity:

$$(13) \circ_{\text{absolute}} Pa \leftrightarrow \Box_{\text{absolute}} Pa$$

Finally, we have seen that in the case of the necessary_{absolute}, possibility entails actuality. This applies to the actual_{absolute}, too: its actuality follows from its own possibility. Hence, there is a sense in which the actual_{absolute} can be characterized both as actual and as possible.²⁸ This motivates Hegel’s peculiar account of absolute *possibility* and *contingency*:

‘But because this *actuality* is posited *to be absolute*, that is to say, *to be itself the unity of itself and possibility*, it is consequently only an *empty* determination, or it is *contingency*. – This *emptiness* of its determination makes it into a *mere possibility*, one which can just as well be an *other* and is determined as possibility. But this possibility is itself *absolute possibility*, for it is precisely the possibility of being equally determined as possibility and actuality.’ (SL 11:389.31-390.1/486)

If our above interpretation of actuality_{absolute} is correct, the actual_{absolute} cannot be *contingent* or *merely* possible (either possible_{unactualized} or possible_{two-sided}) in any robust sense. Rather, Hegel

should be read here as employing *epistemic* notions of possibility and contingency. These notions express the idea that it is *possible to characterize* the actual_{absolute} *both* as possible *and* as actual (‘the possibility of being equally determined as possibility and actuality’), and that it is therefore *contingent* in which way it is characterized.²⁹ (Hegel’s reason for employing these epistemic notions of possibility and contingency becomes clearer once his implicit engagement with Spinoza’s necessitarianism is taken into account (see the following section): within necessitarianism, contingency is explained away as being merely a matter of our subjective attitudes.)³⁰

The epistemic notion of possibility_{absolute} applies iff something is actual_{absolute} and necessary_{absolute}. Therefore, the strict coextensionality of the absolute modalities extends to possibility_{absolute}, too:

$$(14) \circ_{\text{absolute}} Pa \leftrightarrow \square_{\text{absolute}} Pa \leftrightarrow \diamond_{\text{absolute}} Pa.$$

IV. Contextualizing Hegel’s discussion

1. The cosmological argument

How is the transition from real to absolute modality motivated? We had seen before that *real* modality is introduced through an inference from (logical) contingency to (real) necessity that implicitly relies on the PSR. The transition from real to absolute modality can be similarly understood. For the section on real modality culminated in the notion of relative necessity: as it turned out, necessity_{real} is relative to factors that are themselves contingent (namely, the existing natural kinds and the past). According to the PSR, these factors stand themselves in need of an explanation. At this point, it won’t help to cite yet another factor that is only relatively necessary. Rather, the overarching process of relative necessity_{real} needs itself to be grounded in something that itself could no longer by any other way. This is precisely the kind of entity that displays the modal characteristics of necessity_{absolute}. Hence, Hegel’s transition from real to absolute modality, too, implicitly relies on the PSR.

It will easily be seen that Hegel is following here a familiar line of thought – namely, the ‘cosmological’ argument for the existence of God, or the argument ‘ex contingencia mundi’, according to which the existence of contingent objects entails the existence of a necessarily existent being that explains them³¹. While Hegel does not make this connection explicit, he hints at it in the section titles of the chapter (‘Contingency or Formal actuality, possibility, and necessity’; ‘Relative necessity or Real actuality, possibility, and necessity’; ‘Absolute necessity’). In these titles, the threefold division into formal, real and absolute modality is overlaid by another threefold sequence: *contingency – relative necessity – absolute necessity*. Hegel himself uses these very terms in the extensive discussion of the cosmological argument that he offers in lectures 10 to 16 of his *Lectures on the Proofs of the Existence of God*. As Hegel points out there,³² the cosmological argument (1) starts from the observation that ‘worldly things’ (LPEG 280.13/101) are contingent, (2) explains these things in terms of the ‘external and relative necessity’ (LPEG 282.4/103) of causal laws, and (3) explains this necessity, in its turn, in virtue of an ‘absolutely necessary essence’ (LPEG 280.5/101) of the world, or God. Although Hegel does not explicitly state so, both the move from (1) to (2) and the move from (2) to (3) rely on the PSR.

What should we make of this connection with the cosmological argument? At first glance, it may suggest that Hegel’s notion of necessity_{absolute} is meant to refer to a traditional theist conception of God as *ens necessarium*.³³ On such a view, there is only *one* necessary being, God; while God is the explanatory ground of all truths about finite objects (through a decision of his will), these truths remain contingent, because God could have decided otherwise. – However, such an account would not only be incompatible with Hegel’s notion of necessity_{absolute} (see (11) above), it is also contradicted by Hegel’s subsequent discussion. For in the second half of the section on absolute modality (SL 11:391.18-392.25), Hegel goes on to characterize the necessary_{absolute} as a comprehensive unity which encompasses an ‘*existing manifoldness*’ (‘*seyende Mannichfaltigkeit*’) (SL 11:391.21/487) of independent objects or

‘actualities’ (‘Wirklichkeiten’) (SL 11:391.28/487). The independent actualities which are said here to be contained within the necessary_{absolute} are specified in a twofold way.

a. First, the objects in question are characterized by Hegel as *independent*. They are said to exist as ‘*free actualities*, neither of which reflectively shines in the other, nor will either allow in it a trace of its reference to the other; grounded in itself, each is the necessary in itself.’ (SL 11:391.28-30/487) So the objects in question *themselves* possess full-blown necessity_{absolute}: they necessarily exist, and are self-grounding. Hegel captures the reciprocal isolation of these ‘actualities’ by describing necessity_{absolute} as *blind* (SL 11:392.25/488).

b. At the same time, necessity_{absolute} constitutes the underlying ‘essence’ (SL 11:391.39/488) of those apparently independent objects. When this essence exits from its hiddenness, or its being ‘*averse to light*’ (SL 11:392.1/488), it becomes manifest in the fact that the individual objects perish, and suffer a ‘*blind collapse into otherness*’ (SL 11:392.18/488) or ‘nothing’.³⁴ As Hegel also says that this manifestation makes visible both what the individual objects really are, and what the ‘essence’ itself really is (SL 11:392.4/488), he seems to imply that the essence or necessary_{absolute} unity that had been said to comprehend the individual objects, is itself nothing else than the very passing away of those objects. – This second characterization seems to contradict the first, as it negates any independent, self-grounding character of the objects in question.

At first sight, the only thing that becomes clear from this part of Hegel’s discussion is that the theist reading of Hegel’s absolute modality cannot be adequate: according to point a., not only the overarching ‘essence’, but also the manifold individuals are necessary_{absolute}.³⁵ But how is the puzzling characterization of finite objects as self-grounding, necessary entities motivated? Why does Hegel present this characterization together with a further one (b.) that seems to directly contradict it? Is the talk about ‘blind’ necessity meant critically? If so, what is the target of the critique? And last not least, how does this puzzling section relate to the rest

of Hegel's chapter on modality? The reconstruction that I offer in the remainder of this paper will provide one possible way of answering these questions.

2. Spinoza

A solution for the problems that arise from Hegel's puzzling treatment of absolute modality can be gained from Hegel's discussion of the cosmological argument in his *Lectures on the Philosophy of Religion* and his *Lectures on the Proofs of the Existence of God*. In both texts, Hegel offers a reading on which this argument is directly related to Spinozism. For as Hegel points out, the argument establishes the idea that the Absolute can be characterized in terms of the category of necessity_{absolute}. Hegel believes that there is a particular class of philosophical positions which has spelt out the consequences of this idea regarding the relation between God and finite objects:

‘The consistent working-out of the category of absolute necessity is to be looked for in systems that start from abstract thought. The working-out concerns the relation of this principle to the manifoldness of the natural and spiritual world. If absolute necessity as the solely true and genuine actuality serves as the foundation, in what relation do worldly things stand to it?’ (LPEG 308.36-309.4/134f.)

In Hegel's subsequent discussion, it becomes clear what ‘systems’ he has in mind here: systems in which necessity_{absolute} is ‘hyostasized ... as universal being or substance’ (LPEG 309.11f./135), or ‘*systems of substantiality*’ (LPEG 312.6/138) – the most important being Spinozism.³⁶ (In addition to Spinozism, Hegel mentions Eleatic monism: like many authors before him, he takes Spinoza and the Eleatics to share the same basic metaphysical views.)³⁷ According to such systems, finite objects are modes or ‘accidents’ of the Substance that pass

away and give rise to other modes (LPR II 171n./266n.), whereas the Substance is the ‘unity of this process itself’, or the ‘necessity’ that ‘causes coming-about to pass over into passing away and vice versa’ (ibid.). In the *Science of Logic*, Hegel analyses this structure in his discussion of ‘Substance’: it is precisely this category that issues from Hegel’s account of necessity_{absolute} (SL 11:392.27/488), and it is anticipated by the characterization of the necessary_{absolute} as ‘essence’ that contains individuals which come into being and pass away³⁸.

So on the view that Hegel presents in his lectures, and that apparently forms the background for the discussion in the *Science of Logic*, Hegel believes that the cosmological argument leads, if consequently ‘worked out’, to Spinozism. Of course, this is not a trivial claim. Hegel’s justification for it can be reconstructed in two steps. First, Hegel can be seen as arguing that the cosmological argument entails *necessitarianism*. For it explains individual states or events in terms of nomological facts and causal antecedents; these factors are, in their turn, explained in terms of God as their absolutely necessary ground. But if God is really supposed to explain why the laws and the causal series are the way they are, rather than being otherwise, he must *necessitate* those laws and causal series – and, via them, the individual states and events that are explained by them. Any account on which God could also have brought about a different set of laws, and a different causal series, would not satisfy the PSR, for it would leave open the question why God has brought about the actual world rather than its possible alternative.

Hence, all actual facts about finite objects follow necessarily from God: there is a necessary consequence relation such that necessarily, if God exists, precisely those facts about finite objects obtain which actually do obtain. The necessity of this consequence relation must be unconditional necessity – otherwise, there would be a sense in which the relation could fail to obtain, and the PSR would require an explanation of why it actually obtains, rather than not. In the framework of the modal notions from Hegel’s ‘Actuality’ chapter, this

unconditional necessity can only be logical necessity. Therefore (with ‘y’ ranging over finite objects, ‘X’ ranging over genuine properties and existence, and ‘E!’ as existence predicate):

$$(15) \forall Xy(Xy \rightarrow \Box_{\text{logical}}(E!(\text{God}) \rightarrow Xy))$$

Spinoza accepts a principle akin to axiom (K) of modern modal logic:³⁹

$$(16) \Box(p \rightarrow q) \rightarrow (\Box p \rightarrow \Box q)$$

Since God’s existence is, according to the cosmological argument, logically necessary, it follows from this principle and (15) that:

$$(17) \forall Xy(Xy \rightarrow \Box_{\text{logical}} Xy)$$

But this means that all individuals that (17) quantifies over – i.e., all finite objects – satisfy the condition for necessity_{absolute} stated on the right-hand side of the biconditional (11). Hence, all finite objects are necessary_{absolute}: by virtue of the necessary consequence relation expressed in (15), they ‘inherit’ necessity_{absolute} from God, or the Substance. This is tantamount to a form of necessitarianism.⁴⁰

(It is important to notice that unlike facts about God or the Substance, facts about finite objects normally include a temporal index. In particular, this is the case with facts about the existence of finite objects. Hence, the absolute necessity of finite objects that has resulted from this argument does not imply that they are eternal. They exist necessarily in the sense that the fact that they exist during the determinate lapse of time during which they actually exist is necessary.)

In a second step, Hegel seems to argue that the resulting view entails Spinozist *monism*, too. As this additional claim is less important for my subsequent discussion than the point about necessitarianism, it will suffice to briefly sketch how Hegel seems to be reasoning here. It is an important consequence of the first part of the argument that God is an explanatory ground which necessitates everything real. As such, God is an all-pervasive power. He determines finite reality so much that he constitutes the very ‘subsisting of things’ (LPEG 309.13/135).⁴¹ Thus, Hegel seems to assume that the total *explanatory* dependence of finite

objects from God entails that they are totally *ontologically* dependent from God, too. Lacking any ontological independence, finite objects cannot possess substantiality. Therefore, the only entity that properly exists is God, and finite objects are only modes of the divine Substance.

I conclude that the textual evidence from Hegel's lectures suggests the following two points. First, Hegel believes that Spinozism (together with other, roughly equivalent 'systems of substantiality', like Eleatic monism) is the most consequent way to spell out the metaphysical view of the Absolute and its relation to finite entities that emerges from the cosmological argument. Second, both the overall structure of the 'Actuality' chapter in the *Science of Logic*, and the puzzling account of the necessary_{absolute} as including a manifold of finite entities, are part of a critical reconstruction of Spinozism – more precisely, the *modal* dimension of Spinozism. In the next section, I turn to the question how precisely Hegel's *critique* of this position should be understood.

V. Hegel's argument against necessitarianism

We are finally in a position to address Hegel's critique of the modal dimension of Spinozism – i.e., Spinoza's necessitarianism – in which the 'Actuality' chapter of the *Science of Logic*, according to my previous argument, culminates. We have already seen that for Hegel, both the cosmological argument and Spinozist necessitarianism are underpinned by the rationalist hope that we can explain contingent resp. relatively necessary states of affairs by interpreting them as necessary consequences of a necessarily existing being. On the reading that I will propose, Hegel's aim at the end of the 'Actuality' chapter is to show that necessitarianism actually precludes the possibility of giving adequate *explanatory accounts* of facts about finite reality.

My reconstruction of Hegel's argument for this claim turns on the two contrasting ways in which Hegel characterizes, as we have seen in section IV.1, finite entities in the context of necessity_{absolute}. First, Hegel described those entities – within Spinozism: finite modes – as

possessing themselves both necessity_{absolute}, and ontological independence. Second, he characterized them as elements in a process of becoming and passing away that he identified with the overarching ‘essence’ – in Spinozist terms: the Substance. Let us address both descriptions in term.

Regarding the characterization of finite modes as necessary_{absolute} and ontologically independent, we have already seen why Hegel can believe finite modes possess absolute necessity: they inherit it from the Substance. But why can Hegel claim that each such mode is not only ‘the necessary in itself’, but also ‘grounded in itself’ (SL 11:391.28-30/487)?

I believe that Hegel’s own comments on this claim, hermetic though they are, can help to identify an answer to this question. In particular, the following passage deserves scrutiny:

‘Necessity as *essence* is concealed in this *being*; the reciprocal contact of these actualities appears, therefore, as an empty externality; the actuality *of the one in the other* is the possibility which is *only possibility, contingency*. For being is posited as absolutely necessary, as the self-mediation which is the absolute negation of mediation-through-other, or being which is identical only with being; consequently, an *other* that has actuality in *being*, is therefore determined as something *merely possible, as empty positedness.*’ (SL 11:391.30-37)

According to this passage, the fact that a finite mode M_1 possesses the modal status of necessity_{absolute} is incompatible with an ‘actuality *of the one in the other*’, or an ‘*other* that has actuality in *being*’ – that is, presumably, with M_1 being the realization of a *possibility* (more precisely, possibility_{real}) which another mode M_2 gives rise to. On this reading, the relation of ‘realization’ in question would be a relation of ground and consequence – hence, an *explanatory* relation between finite modes. Given the necessity_{absolute} of all finite modes, Hegel claims, such a relation would be ‘something *merely possible*’, ‘*contingency*’, or an

‘*empty positedness*’. ‘Possibility’ can be read in *this* formulation as possibility_{absolute}, i.e. as an *epistemic* possibility to describe a given object or state of affairs in different ways. Yet since Hegel also talks about ‘contingency’ and ‘empty positedness’, the possible description would seem to lack concrete content, and be a mere subjective construction.⁴²

Why should the fact that finite modes are necessary_{absolute} exclude that they can meaningfully be described as standing in explanatory relations to other finite mode? According to Hegel’s reconstruction of Spinoza’s necessitarianism, (a) all truths about finite modes follow with necessity_{logical} from the fact that the Substance exists. At the same time, Spinoza also holds that (b) at least a broad range of truths about every given finite mode M_1 , including the fact that it exists during a determinate lapse of time, have their *direct* explanation in causal relations between M_1 and other finite modes M_2, M_3 etc. Hegel’s worry is, on the reading I want to propose, that there is an important conflict between (a) and (b).

If (a) is accepted, all truths about any given finite mode M_1 are necessary_{logical}. Unlike truths about the Substance, they are not so merely in virtue of M_1 ’s essence; M_1 is not itself a *causa sui*, and the truths about M_1 could be otherwise, if they are only considered with respect to M_1 ’s essence. But if, in addition, the necessary existence of the Substance and its consequence relations to M_1 (which themselves follow from the essence of the Substance) are taken into account, truths about M_1 *are* logically necessary. Now this seems to imply that the necessary existence of the Substance plus its consequence relations to M_1 offer a *full explanation* of all truths about M_1 : taken together, they are sufficient for all truths about M_1 to obtain. But in that case, the explanatory relations *between* finite modes that are postulated in (b) become explanatorily idle. Explanatory grounds serve to make understandable why something is the way it actually is, rather than being any *other* way that it could possibly be. If there is already an explanation in place which entails that the explanandum has to be this and not any other way, there is nothing left to explain. – If this is the point that Hegel is making here, he is entitled to describe finite modes as independent or self-grounding in a

relative sense: they are ontologically independent *with regard to each other*, since they do not stand in *mutual* explanatory relations to each other.⁴³

However, this does not on its own suffice to show that Spinozism (and more generally, the rationalist metaphysics of ‘substantiality’ that is summarized in the cosmological argument) leaves no space for satisfactory explanations of facts about finite entities. For there is at first sight no reason why such explanations could not be given in terms of the direct dependence of such entities on God. It is in the *second* of the two characterizations of finite modes distinguished above that Hegel turns to the relation between finite modes and the Substance. In order to complete our reconstruction of his argument, we therefore have to turn to this part of his discussion now.

As we have already seen, Hegel characterizes in this part of his discussion the *passing-away* of finite modes as manifestation of the Substance, or the necessary_{absolute} ‘essence’. On his reading, the Substance is not something over and above the process of passing-away of finite modes; rather, it is that process itself. The subsequent chapter on ‘The absolute relation’ further develops this account – now explicitly under the Spinozist heading of ‘The relation of substantiality’ –, and describes the Substance as ‘power’: ‘Substance manifests itself through the actuality, with the content of the latter into which it translates the possible, as *creative* power, and, through the possibility to which it reduces the actual, as *destructive* power.’ (SL 11:395:18-20) So the Substance is a ‘power’ to cause finite reality – and given necessitarianism, a power to cause precisely the finite reality that there is, and none other.

What consequences does this have for the possibility to give explanations for facts about finite modes? I believe that Hegel’s answer to this question becomes best visible when he draws, in related contexts, a connection between the Spinozist view of finite reality, and the ancient Greek fatalist belief in *destiny*.⁴⁴

As Hegel describes it, a characteristic expression of fatalism is to comment the course of things by making statements like ‘This is how things are’, or ‘It is necessarily so’.⁴⁵ Fatalists might just as well use the schema:

(18) p , because it is destiny that p .

(18) has the form of an explanation for p . And for a fatalist who holds that destiny is the metaphysical ground of all facts about finite entities, an assertion of the form (18) would even correctly indicate a sufficient reason for p . Nevertheless, it would be quite inappropriate to understand that assertion as an attempt to make p *understandable*. The point of the traditional idea of a destiny seems to be rather that there is *nothing* to understand about what happens in finite reality. An assertion of the form (18) would therefore normally be read not as proposing a way of understanding p , but as expressing a frame of mind which has ‘abandoned arguments in terms of causes and purposes’ (LPR II 69/163), or the quest for explanations in general.

In order to fully appreciate the point that Hegel is making by relating necessitarianism to fatalism, we have to ask why this is so – why is postulating a destiny not an explanatory endeavour? First, it may be replied, an explanation of the form ‘ p , because it follows from A that p ’ enables us to understand why p only if we can also understand in what way p follows from A . For instance, if A is a law of nature and p an observed regularity, we can explain p on the basis of A only if we can *derive* p from A . It seems obvious that in the case of fatalism, no such understanding is given at all, as it would contradict the idea of a blind fate.

Second, there is a further reason why statements of the form (18) do not qualify as explanations. When we invoke destiny, we presuppose that destiny cannot be any other way – not because there is a reason why it is as it is, but simply because it necessarily is the way it is. Hence, even if the fatalist could somehow ‘derive’ determinate facts from destiny, the mere idea that it is *destiny* which necessitates those facts implies that we could not possibly give any explanation of why destiny makes it the case that *this*, rather than something else, happens.

Let us now turn back to rationalist necessitarianism. Given the necessitarian account of the Substance as power to cause precisely *this* finite reality, rationalists can give explanations of facts about finite reality by simply using the following form of explanation:

- (19) p , because the Substance is a power that is necessarily manifested in a reality in which p ,

which amounts to the same as:

- (20) p , because it follows from God's essence that p .

Hegel's point seems to be that such explanations have hardly more explanatory power than the fatalist statements of the form (18). For the same points that explained why 'destiny' is *not* an explanatory notion apply here as well. First, rationalists, too, will always (or almost always) be unable to spell out the connection in virtue of which the explanandum follows from the explanans. Second, even if rationalists *were* able to spell out the connection between the explanans and the explanandum, the resulting explanations would still remain deficient (just like in the case of fatalism). In order to spell out why the explanandum follows from the explanans, rationalists would have to identify determinate features that characterize the divine power or essence, and that are responsible for the consequence that p . But then we can apply the PSR once more, and ask why the divine essence includes these features. This question cannot be possibly given an answer. For the Substance, *qua causa sui*, is supposed to be self-grounding, and to be fully explained by its essence. Hence, the determinate features of that essence cannot themselves depend on something more fundamental. But since we can nevertheless raise explanatory questions about them, the explanations of facts about finite reality that are based on those features will remain incomplete.

This completes my reconstruction of Hegel's argument in the final part of the 'Actuality' chapter: for if the last point is sound, Hegel is right to claim that rationalist necessitarianism does not only preclude (partial) explanations of facts about finite modes in terms of *other* finite modes, but also explanations of such facts in terms of their dependence on the

Substance.⁴⁶ This result would undermine rationalist necessitarianism, for the latter view is ultimately motivated, at least on Hegel's reconstruction, by the PSR. I do not mean to claim that the argument that I have ascribed to Hegel does not leave Spinozists without possible counter-moves; nor can I possibly address here the question to what extent Hegel's critique relies on an adequate interpretation of Spinoza. But at least, it should have become clear that underneath the surface of the 'Actuality' chapter in the *Science of Logic*, Hegel undertakes a detailed critical engagement with Spinoza's modal metaphysics.⁴⁷

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¹ In quoting Hegel, I use the editions and, with minor modifications and unless indicated otherwise, the translations indicated in the bibliography. The references state the page number (and, where required, volume and/or line number, too) in the respective edition, followed by the page number in the translation. I use the following abbreviations:

SL	<i>Science of Logic</i> (= Gesammelte Werke, vols. 21 and 11)
Enc.	<i>Encyclopedia</i> (1830) (= Gesammelte Werke, vol. 20)
LPR II	<i>Lectures on the Philosophy of Religion</i> , vol. 2: <i>Determinate Religion</i> (= Vorlesungen, vol. 4a)
LPEG	<i>Lectures on the Proofs of the Existence of God</i> (= Gesammelte Werke, vol. 18:228-336)
LM	<i>Vorlesungen über Logik und Metaphysik, Heidelberg 1817</i> (= Vorlesungen, vol. 11)

Quotations from Spinoza's *Ethics* follow the usual scheme (E=*Ethics*, followed by the number of the part; def=definition, p=proposition, d=demonstration, s=scholium,). References to Leibniz state work and paragraph number. Kant's *Critique of Pure Reason* is referred to by 'CPR', followed by the page-number in the A-/B-edition.

² Examples include Findlay 1958; Henrich 2010; di Giovanni 1980; Burbidge 1980; and Ng 2007.

Kusch/Manninen 1988 and Longuenesse 2007 stress Hegel's critical engagement with other authors in this chapter, but nevertheless read the overall aim of the chapter as a presentation of Hegel's positive account of the modal categories.

³ Cf. the seminal treatment Henrich 2010 (first published in 1959), as well as Burbidge 1980, di Giovanni 1980 and Ng 2009. For discussions of the doctrine of the necessity of contingency with respect to Hegel's philosophy in general, cf. Utz 2001, Burbidge 2007, and Kreines 2008.

⁴ Given that both the preceding ('The Absolute') and the subsequent chapter ('The Absolute Relation', including the discussion of Substance) in the *Science of Logic* clearly relate to Spinoza, it is somewhat surprising that Spinoza's significance for the chapter 'Actuality' has almost completely gone unnoticed. As far as I know, Fleischmann 1964 is the only commentator so far who has seen the aim of the entire chapter in a critical engagement with Spinoza. Yet not only is he very vague about the details of Hegel's argument, he also fails to appreciate the meaning of necessitarianism (cf. *ibid.*: 16). – Longuenesse 2007 reads only the section on absolute modality as engaging with Spinozism; however, she does not specifically see Spinoza's necessitarianism as Hegel's target.

⁵ This does not exclude that Hegel in the course of his discussion also voices some of his own positive views about modality. However, a reconstruction of these views would have to take into account the *Logic of the Concept* and the *Realphilosophie* as well, and this is beyond the scope of this paper.

⁶ The main passages for Spinoza's necessitarianism are E1p16, E1p29 and E1p33 (cf. Garrett 1991: 205-11). – There is some controversy in Spinoza scholarship on whether Spinoza is a necessitarian in this sense (e.g., Garrett 1991), or whether he actually holds a weaker view (e.g., Curley/Walski 1999). I will presuppose the strong necessitarian reading, as it is the one that is most relevant for Hegel.

⁷ The issue of necessitarianism is connected to the doctrine of the necessity of contingency, of course: by refuting necessitarianism, Hegel clears the ground for the necessity of contingency. (Hegel's argument could even be seen as attempting to show that necessitarianism *as such* is *necessarily* false: this would be tantamount to showing that necessarily, there are contingent facts. I shall remain neutral regarding the question whether Hegel's text supports such a strong reading.)

⁸ There has been considerable recent interest in Hegel's reception of Spinoza; cf., for instance, Melamed 2010; Newlands 2011; Bowman 2012; Moyar 2012; Melamed 2012; Hindrichs 2012; Förster 2012. Earlier treatments include Parkinson 1977, Macherey 1991, and Düsing 1991. None of these discussions addresses Hegel's engagement with Spinoza's necessitarianism.

⁹ E.g., Burbidge 1980: 205, Longuenesse 2007: 127f., and Ng 2009: 161f.

¹⁰ Cf. Hegel's claim that '[p]ossibility ... implies that the opposite is also possible' (SL 11:383.10-13/480), and his use of the notion of contingency (Zufälligkeit) (first introduced at SL 11:383.36). (I will discuss these points in detail below.)

¹¹ Enc. §143 Rem., 165.23-7/213; SL 11:382.21-28/479. Hegel seems to be thinking here primarily of the conception of philosophy as 'science of the possible' championed by Christian Wolff and his followers. – In this context, Hegel also argues that by the measure of formal possibility, everything is *impossible*, as everything contains a contradiction. I agree with McTaggart 1910: 164 that this is misleading. The sense of contradiction that is relevant for the definition of formal possibility is the formal sense of contradiction in which $p \ \& \ \sim p$ is a contradiction; Hegel's doctrine that everything real contains contradictions (SL 11.286.15-290.80) relies on a non-formal notion of contradiction, which interprets phenomena of material *conflict* (e.g. deficiency, drive, finitude) as contradictions (cf. Hahn 2007: ch. 3).

¹² Hegel's talk about possibility being 'complemented' by actuality goes back to Wolff's account of actuality as 'complementum possibilitatis' (Wolff 1730: 143 (§147)).

¹³ The right-hand side of the biconditional in (4), ' $\diamond_{\text{logical}} p \ \& \ \diamond_{\text{logical}} \sim p$ ', is equivalent to ' $\diamond_{\text{logical}} \sim p \ \& \ \diamond_{\text{logical}} \sim(\sim p)$ '. Given (4), this is equivalent, in its turn, to ' $\diamond_{\text{two-sided}} \sim p$ '.

¹⁴ Cf. Burbidge 1980: 205. – Some commentators – including Fleischmann 1964: 10f. and di Giovanni 1980: 185 f. – fail to distinguish these different senses of formal possibility. Others – including Mure 1950: 133-6,

Kusch/Manninen 1988: 117-123, Houlgate 1995: 39-41, and Longuenesse 2007: 121-7 – distinguish (at least some of) the different senses, but treat them as being extensionally equivalent for Hegel. In both cases, Hegel’s position becomes very implausible. For instance, it is clearly wrong that everything that is possible_{logical} is also possible_{two-sided} (pace Houlgate 1995: 41): in this case, there could be nothing that is logically necessary.

¹⁵ That the possibility operator in the antecedens must stand for two-sided possibility is clear from Hegel’s formulation: ‘this connection, in which the one possible also contains its other’.

¹⁶ Hegel talks in this context as if it were an established idea that possibility entails actuality; he might be thinking here of possibilist claim that ‘[*p*]ossible semper est aliquid’ (Wolff 1730: 84 (§102)). – The connection to Wolff might also suggest a ‘Meinongian’ reading of Hegel’s own claim (cf. Burbidge 1980: 204). But such a reading would stand at least in strong tension with Hegel’s claim that formal possibility pertains only to subjective thought (see section I.1 above).

¹⁷ Correspondingly, when Hegel goes on to paraphrase this as ‘an actual whose other or opposite equally is’ (SL 11:383.37-384.1/480), the ‘is’ ought to be given a very weak reading. Indeed, Hegel shortly after uses the weaker formulation that the actual has the ‘value’ of a possibility, and vice versa (SL 11.384.2f./480). By this, he presumably means that the actual could have been possible just as well, and vice versa (cf. LPEG 280.30-3/102: ‘They [sc. the objects in the world] *are*; they are actual, but their actuality has the value merely of a possibility. They are, but can equally well be as non be.’)

¹⁸ Cf. LPEG 283.19-284.12/104f.

¹⁹ The contingency of *p* entails, while its necessity_{logical} excludes, the possibility_{logical} of $\sim p$.

²⁰ ‘Weaker’, insofar as this necessity is extensionally broader than logical necessity. – Houlgate 1995: 42 claims that ‘all that can be understood by necessity at this point is the necessity *of* contingency’. This does not match Hegel’s wording, however: he does not ascribe at this point necessity to contingency *itself*, but to *the contingent* (SL 11:385.2) – whatever is contingent is also necessary.

²¹ So pace Houlgate 1995: 44f., Hegel’s account of real modality clearly entails determinism.

²² As the notions of real modality range only over a subset of all metaphysically possible scenarios (those that are compatible with given material constraints – see below), their coextensionality does not imply necessitarianism, but only determinism. – In addition, Hegel points out that ascriptions of real modalities have, unlike those of formal modality, genuine cognitive content: when we describe something as possible_{real}, we refer to a concrete aspect of reality, and ‘get involved’ with ‘the determinations, the circumstances, the conditions’ (SL 11:386.13f./482) of the possible_{real}. (As in his related remarks on formal possibility, Hegel seems to express his own position here.)

²³ Cf. Knappik, unpublished.

²⁴ LM 130, emphasis added (my translation).

²⁵ That this actuality can be ‘no longer’ otherwise is meant, I take it, to contrast actuality_{absolute} with the forms of actuality that Hegel had previously discussed.

²⁶ Cf. Kant’s account of this difference at CPR B621f.

²⁷ Cf. SL 11:391.15/487: ‘its possibility is its actuality’ (about the necessary_{absolute}), which takes up the notion of *necessary existence* from the ontotheological tradition.

²⁸ We need not decide here whether the relevant sense of ‘possibility’ is possibility_{logical}, or a notion of possibility_{absolute} that is different from the one that I will discuss below.

²⁹ By contrast, Burbidge 1980, 211 reads the passage in terms of non-epistemic modality, and hence as characterizing the actual_{absolute} (and hence, the necessary_{absolute}) as entirely contingent. But then Hegel’s strong claims about necessity_{absolute} become unintelligible. Other commentators – including Henrich 2010: 164, di Giovanni 1980: 193f., Kusch/Manninen 1988: 142, and Ng 2009: 178 – adopt a reading on which ‘absolute necessity produces contingency as a moment of itself’. The most promising way to spell out this idea seems to me the following: what is necessary_{absolute} possesses necessary existence, but has either properties that could also be otherwise, or brings about something else that also could be otherwise. Both options contradict Hegel’s above-quoted claim that the notion of necessity_{absolute} *also* implies necessity with regard to the ‘determinations of content’ (LPEG 323.20f./153).

³⁰ Cf. E1p33s1.

³¹ Perhaps the most influential formulation of this argument stems from Leibniz (*Theodicy*, §7; *Monadology*, §§36-8; *The Principles of Nature and Grace*, §§7f.). (On the argument, see Sobel 2004: ch. 6 with further bibliography.) Often, other a posteriori arguments are referred to as ‘cosmological arguments’, too (for instance, arguments for first movers and for first causes). Following Hegel’s (Kantian) terminology, I will reserve the term ‘cosmological argument’ for the argument ex contingentia mundi. – As far as I can see, the role of the cosmological argument as ordering principle of Hegel’s modality chapter has not been noticed by commentators so far. Henrich 2010: 164n. gives a passing hint; Longuenesse 2007: 127 mentions Kant’s criticism of the cosmological argument in the context of formal modality, but does not relate the argument to the overall structure of Hegel’s chapter.

³² LPEG 280.2-282.8/101-6; cf. LPR II 167.739-168.761/262f.

³³ Thus, Kusch/Manninen 1988: 144 relate Hegel’s notion of necessity_{absolute} to Leibniz’s/Wolff’s theistic account of the ens necessarium.

³⁴ Cf. also SL 11:392.18-20/488.

³⁵ This also speaks against the reading of Kusch/Manninen 1988: 145ff., who read the second half of the section on absolute modality as exclusively engaging with Leibniz's monadology. (But see note 43 below.)

³⁶ Cf. LPR II 171n./265n.: 'Thus God is what is necessary in and for itself, and this determination is the absolute foundation. If this too does not yet suffice, God must be grasped as substance'.

³⁷ Cf. Melamed 2010: 77-9.

³⁸ The connection between Hegel's account of the 'free actualities' in necessity_{absolute} and Spinoza's finite modes is noticed by Longuenesse 2007: 154.

³⁹ Cf. E1p21d.

⁴⁰ It might be objected that necessitarians cannot accept arguments ex contingencia mundi, as they have to reject the premise that there are contingent facts. But first, Hegel considers the traditional a posteriori proofs not as formally valid arguments but as lines of thought (expressing thought's 'elevation' to God) which lead to viewpoints that involve a radical re-interpretation of the earlier stages of the arguments (see Enc. §50 Rem., 87.11-88.21/96-8; LPEG, Lecture 13). Second, the cosmological argument can be rendered compatible with necessitarianism if instead of 'contingency', a qualification like 'not being self-explaining' is used in the premises of the argument. (In an extremely compact form, a version of the cosmological argument along this line can be detected in E1p11d3: see Lærke 2011.)

⁴¹ Hegel adopts this way of interpreting Spinoza's Substance from Jacobi: cf. Jacobi 1785: 41f.

⁴² Hegel's subsequent claim that this 'contingency' is actually 'absolute necessity' (SL 11:391.38/488) can be understood in the sense that the dependence of finite modes on something else is, after all, not a mere subjective construction, insofar as the modes *do* depend on the Substance.

⁴³ This explains why Hegel in this part of the chapter describes finite modes like Leibnizian monads (e.g., as '*averse to light*' (SL 11:392.1/488); cf. Kusch/Manninen 1988: 145ff.

⁴⁴ E.g., LPEG 286f./108f.; LPR II 68f./162f. – In the *Science of Logic*, Hegel chooses instead to argue by way of the principle '*omnis determinatio est negatio*' (cf. SL 11:392.16-18/488). On the reading of the principle that he ascribes to Spinoza, it entails that everything determinate has to pass away sooner or later. It therefore rules out any determinacy within the Substance – and hence, any basis for an explanation of finite entities on the basis of the Substance. But of course, this argument relies on a highly idiosyncratic reading of Spinoza.

⁴⁵ See again LPEG 286f./108f.; LPR II 68f./162f.

⁴⁶ So unlike other accounts of Hegel's critique of Spinoza (e.g., Melamed 2010), this reconstruction does not see Hegel as arguing that Spinoza grants too little reality to finite entities. Rather, Hegel thinks, on this reading, that Spinoza cannot adequately *explain* the existence and structure of finite reality.

⁴⁷ I have profited from audiences in Leuven and Berlin, and from two anonymous referees for this journal. Special thanks go to Thomas Kroedel, Stephan Schmid, and Nick Stang.