

The Limits of Non-Standard Contingency

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Gideon Rosen has recently sketched an argument which aims to establish that the notion of metaphysical modality is systematically ambiguous. His argument contains a crucial sub-argument which has been used to argue for Metaphysical Contingentism, the view that some claims of fundamental metaphysics are metaphysically contingent rather than necessary. In this paper, Rosen's argument is explicated in detail and it is argued that the most straight-forward reconstruction fails to support its intended conclusion. Two possible ways to save the argument are rebutted and it is furthermore argued that the crucial sub-argument only supports a rather particular variant of Metaphysical Contingentism.

1 Introduction

The notion of metaphysical modality plays important roles in philosophical theorizing, especially within metaphysics. Necessity conceived of as a genuine 'notion [...] of metaphysics' (Kripke (1980), p. 35) concerns how things must be and must have been independently of anyone's epistemic state, knowledge or perception of the world. Metaphysical necessity in this sense is often assumed to be absolute (see Hale (1996), pp. 95f) or unrestricted (see Rosen (2006), p. 16), 'necessity in the widest sense' (Stalnaker (2003), p. 202) or at least 'relatively absolute' (Nolan (2011), p. 313). Metaphysical

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necessity can therefore be used to define restricted notions of necessity, such as those of biological, nomological, physical or technological necessity.

Rosen has recently argued that the notion of metaphysical modality is problematic. He argues that while there is a commonly accepted ‘informal elucidation’ of the notion to which most philosophers working on modality agree, this characterization leaves room for two different conceptions of metaphysical modality, the Standard and the Non-Standard Conception. These two conceptions are, argues Rosen, both equally faithful to the elucidation, but disagree about the metaphysical necessity or contingency of certain propositions. If Rosen is right, the notion is ambiguous between the meaning assigned to it by the two conceptions, which is a genuine problem, since it shows that ‘our working conception of metaphysical necessity is confused in the sense in which the Newtonian conception of mass is supposed to have been confused. Questions about metaphysical necessity are ambiguous, and where divergent resolutions of the ambiguity yield different answers, the modal question as we normally understand it has no answer.’ (Rosen (2006), p. 17.)

Rosen’s argument has important further implications. It for example calls into question whether the notion can legitimately be used to define other important philosophical notions, such as the notion of supervenience needed to formulate the Physicalist claim that the mental supervenes on the physical.¹ The crucial sub-argument of Rosen’s paper furthermore serves as a conditional argument for Metaphysical Contingentism, the claim that at least some true claims of fundamental metaphysics are metaphysically contingent, rather than necessarily true, the condition being that Rosen’s Non-Standard Conception of metaphysical modality is correct.² Rosen’s argument is also a substantial contribution to the recent discussion about whether metaphysical necessity is an absolute or restricted necessity. (See Kment (2014), ch. 7, Jackson (2011), Sider (2011), ch. 12, Stalnaker (2003), sect. 1.)

In this paper, I will argue that the most straight-forward reconstruction of Rosen’s main argument fails. I will then develop two modifications of Rosen’s Non-Standard Conception which promise to save the argument, but will finally argue that both should be rejected, because they commit one to a highly problematic view about the meaning of certain formal concepts, such as that of being a set.

I first set the stage for the following discussion (section 2) and then explain the crucial

¹See Kim (1996), ch. 7, pp. 171ff for an argument that Physicalists have to rely on metaphysical instead of nomological necessity in formulating their supervenience claim; for a general introduction to supervenience, see McLaughlin and Bennett (2014).

²For more on Contingentism, see Miller (2010) and see Miller (2009) for an application of the crucial sub-argument.

sub-argument, the Contingentist Argument (section 3). I then show that the correct conceivability-based definition of metaphysical necessity supplied by the Non-Standard Conception is equivalent to a particular version of the Essentialist definition of the same notion (section 4.1). I rely on this equivalence to uncover an ambiguity in the Non-Standard Conception's core assumption, the Anti-Anselmian Assumption. I show that one of the two corresponding disambiguations leaves a premise of the argument unsupported and that the other gives us an argument which establishes a conclusion which is too strong for Rosen's purposes (section 4.2). I then develop and argue against two ways to save the argument (section 5). In the last section, I discuss whether the crucial sub-argument can serve as an argument for Metaphysical Contingentism (section 6).

2 Rosen on Metaphysical Modality

2.1 Rosen's Informal Elucidation of Metaphysical Necessity

There is no commonly accepted definition of metaphysical necessity. There is however a relatively stable consensus about certain properties of metaphysical necessity. Rosen captures this consensus in an 'informal elucidation' of the notion, which can be condensed into the two claims that metaphysical modality is an absolute real modality and that it is strictly weaker than both logical and conceptual necessity.³

Real modalities are 'alethic, non-epistemic, and sometimes substantive or synthetic'. (Rosen (2006), p. 16.) That metaphysical necessity is an absolute real necessity means that being metaphysically necessary implies being a real necessity of any other kind, such as e.g. biological or physical necessity.⁴ That metaphysical necessity is strictly weaker than both logical and conceptual necessity means that being metaphysically necessary does not imply being logically or conceptually necessary, but that being logically or conceptually necessary implies being metaphysically necessary.⁵

The informal elucidation also includes a list of paradigm metaphysical necessities, including 'the (non-indexical) logical truths and the conceptual truths more generally' and 'the uncontroversial Kripkean necessities: (propositions expressed by) true identities flanked by rigid terms and essential predications: propositions of the form Fa , where a is essentially F .' (Rosen (2006), p. 18).

³See Rosen (2006), section 2, p. 15-6.

⁴This matches the definition of absoluteness of Hale (1996).

⁵Note that the two claims together imply that logical and conceptual modality are not real modalities.

2.2 The Standard, the Non-Standard Conception, and the Differential Class

Based on the informal elucidation, Rosen sets up two systematic conceptions of metaphysical modality which ‘both fit the elucidation equally well’ (Rosen (2006), p. 17), the *Standard* and the *Non-Standard Conception*. I will call the notion of metaphysically necessity of the Standard conception *Standard necessity* and that of the Non-Standard Conception *Non-Standard necessity*. The Standard conception serves as an important backdrop in Rosen’s argument, but it is not itself discussed in detail in Rosen (2006). It is supposed to capture the view of metaphysical necessity which is tacitly assumed by the (relevant subset of the) philosophical community. Here is a first, brief characterization of the two conceptions in terms of possible worlds, which illustrates their divergence (more on the Non-Standard Definition later):

According to the Non-Standard Conception, P is metaphysically necessary when its negation is logically incompatible with the natures of things. According to the Standard Conception, P is metaphysically necessary when it holds in every (Non-Standard) possible world in which the actual laws of metaphysics also hold, where the basic laws of metaphysics are the truths about the form or structure of the actual world. (Rosen (2006), pp. 37-8.)

A crucial implication of this characterization is that the Standard and the Non-Standard Conception may differ regarding the modal status of certain propositions, in particular those whose negation is compatible with the natures (or equivalently: essences) of things, but which are, or are implied by, the actual laws of metaphysics. These propositions, which are Standard necessities, but Non-Standard contingencies, form the *differential class*. It is not entirely clear what a law of metaphysics is, but this is not overly important for Rosen’s argument, since he explicitly characterizes the propositions in the differential class by listing five properties they share: They are not analytic, categorically or conditionally entail the existence of a specific sort of object, are more plausibly a priori than a posteriori, their content concerns basic ontology, and they are standardly classified as metaphysically necessary. (See Rosen (2006), pp. 19-20.) One of Rosen’s examples is the pairing axiom of set theory:

(Pairing) For any things x and y , there exists a set containing just x and y .

Rosen assumes that Pairing, unlike e.g. the extensionality axiom, fails to express an analytic truth about sets. As Rosen puts it, ‘[y]ou can know full well what set membership is *supposed to be*—what it is to be a set, what the word ‘set’ means—without knowing

whether any sets exist, and without knowing whether Pairing is true.’ (Rosen (2006), p. 18.) Pairing furthermore implies the existence of sets (if it has true instances), its truth cannot be established by a posteriori means, it is about ontologically fundamental entities, and it is standardly classified as metaphysically necessary, like any mathematical truth. Pairing therefore meets all criteria for membership in the differential class.⁶

3 Rosen’s Contingentist Argument

The central argument of Rosen’s paper aims to establish that propositions in the differential class are Non-Standardly contingent. Since the Standard conception classifies them as metaphysically necessary, this would show that ‘if both [conceptions] are tenable, our discourse about necessity is shot through with ambiguity.’ (Rosen (2006), p. 38.) Since this argument establishes a limited form of Metaphysical Contingentism based on the Non-Standard Conception, I will call it the *Contingentist Argument*.

The Contingentist Argument is based on two crucial principles which are part of the Non-Standard Conception. The first says that to be metaphysically possible is to be correctly conceivable, where a proposition p is correctly conceivable if, and only if, an ideally informed conceiver who knows the essences of all entities, that is, the essences of all objects and features,⁷ cannot deduce a logical contradiction from the supposition that p .⁸ I will discuss this definition of metaphysical possibility, which I will from now on call the *Non-Standard Definition*, in more detail in section 4.1.

3.1 The Anti-Anselmian Assumption

The second principle is the *Anti-Anselmian Assumption* or AAA for short. The AAA is an assumption about essentially true propositions. According to Rosen, it ensures that if a proposition describes the essence of a feature F , it articulates a condition ‘that a thing must satisfy if it is [to] be an F .’ (Rosen (2006), p. 25.) A further important feature of an AAA-based interpretation of the notion of essence/nature is that ‘[i]t is not obviously incompatible with this interpretation that existence (or existence given the existence of things of some more basic kind) should be part of the nature of a thing or kind’ and a third that ‘even when it [existence] is, it will not be incoherent to deny

⁶Further examples of propositions in the differential class are the principle of universal mereological composition, the claim that God exists, and Armstrong’s claim that resemblance between particulars is a matter of the sharing of immanent universals. See Rosen (2006), pp. 19, 26.

⁷‘Feature’ is here used as a an ontologically neutral term for whatever predicates stand for (e.g. properties and relations, universals, tropes, ...).

⁸See Rosen (2006), p. 23.

the existence of that thing or kind (or to deny it when the alleged condition has been satisfied).’ (Rosen (2006), p. 25.)

Rosen (2006) does not provide a more precise formulation of the AAA, but there is a rather natural proposal for such a formulation: We can interpret the AAA as the claim that all propositions which express essential truths about a feature F have to have the form of material conditionals whose antecedent is of the form $\exists xFx$, i.e. correspond to conditional propositions whose antecedents contains a simple existence statement about F s and whose consequent states an essential truth about F . Following this proposal, the essentially true proposition which captures what Pairing says about being a set is the conditional propositions (If sets exist, then for any things x and y , there exists a set containing just x and y). This formulation of the AAA conforms to Rosen’s characterization: The conditional formulation captures the idea that essential truths about F are conditions for being an F since it guarantees that there are no F s if the conditions for being F are not fulfilled. It also supports a view of essence which has the two further features mentioned by Rosen. First, the proposition in the consequent of an AAA-conform proposition can contain existence-claims and second, even if it does, no incoherence results if one denies those claims.

The conditional reading not only fits Rosen’s view of essence, it is also strongly suggested by a passage in Rosen (2006) in which ‘the Others’, the imaginary philosophers who play the role of the advocates of the Non-Standard Conception, state that the negation of the AAA-conform version of Pairing ‘amounts to the claim that either there are no sets, or sets exist and some things X and Y lack a pair set.’ (Rosen (2006), p. 25.) If we take the Others by their word, the (un-negated) AAA-conform version of Pairing says that if there are sets, then if there are sets, then for any things x and y , there exists a set containing just x and y , making it logically equivalent to the proposition which was just used as an example for the conditional formulation of the AAA.

Are there salient alternatives to the suggested conditional formulation of the AAA? While I do not currently see a feasible alternative, I am open to treating the main argument of the paper as a conditional argument, the condition being that the Non-Standard Conception is based on the conditional formulation of the AAA.⁹

Before I finally discuss the Contingentist Argument in more detail, I want to briefly raise another important question about the AAA which is not explicitly settled in Rosen

⁹David Mark Kovacs has made the interesting suggestion that the AAA might be read as requiring that essential truths do not introduce further ontological or ideological commitments. This proposal is however not pertinent in the context of a discussion of Rosen’s argument, since the argument is aimed at a minimal version of the Non-Standard conception which does not come with a particular stock of posterior ontological or ideological commitments.

(2006), if only to put it aside until later. In Rosen’s paper, the focus is mostly on the essences of features, but the AAA is also assumed to apply to the essences of objects. This is evident in some formulations (‘part of the nature of *a thing* or kind’ (Rosen (2006), p. 25)) and also in the brief discussion about the essence of god. (See Rosen (2006), p. 26.) Note that this strongly suggests that the constraint imposed by the AAA is also met by conditional propositions with an existence claim about objects, i.e. of the logical form $\exists x(x = a)$, where a is a constant designating an object. This raises the general question of whether the AAA applies only to the essences of features or also to those of objects.

For the moment, it makes sense to proceed on the assumption that the AAA applies to both objects and features. Apart from the textual evidence, there is a further reason to make this assumption. The Contingentist Argument involves the Non-Standard Definition, which takes into account both the essences of features and of objects. Unless the essences of the objects were completely irrelevant to then Non-Standard Definition, which seems highly implausible, this means that a reconstruction of Rosen’s argument which restricts the AAA to just the features runs the risk of uncharitably introducing more Non-Standard contingencies than it requires.

3.2 A First Statement of the Argument

Rosen’s own statement of the Contingentist Argument is brief and not entirely explicit, so the following is a reconstruction, rather than a straight-forward restatement of the argument. It involves a slight simplification,¹⁰ but nonetheless stays faithful to the idea of Rosen’s argument. The presentation focuses on the instance of the argument for Pairing.

Assuming that the AAA holds, neither Pairing itself, nor its negation are essentially true, since neither has the conditional form and the content required by the AAA. As a consequence, both are correctly conceivable, since if Pairing itself does not express an essential truth, an ideal agent who is perfectly informed about all essences will not be able to deduce a contradiction from the supposition that Pairing is false and likewise for the supposition that Pairing is true. Since correct conceivability implies Non-Standard possibility, it seems that we can straightforwardly conclude that Pairing is Non-Standardly

¹⁰It focuses only on one of three cases regarding the nature of the relevant entity, namely the case in which the relevant proposition (e.g. Pairing) expresses an essential truth about the relevant feature (e.g. that of being a set). The more detailed reconstruction of the next section will show that the second case, in which the proposition expresses an essential falsehood is perfectly analogous. Rosen’s third case, in which the truth or falsity of the proposition is not settled by the relevant essences trivially supports the conclusion of the Contingentist Argument.

contingent. But this would be too quick.

There is a conditionalized version of Pairing which conforms to the AAA and which is therefore apt to describe the essence of being a set:

PairingAA If there are sets, then for any things x and y , there exists a set containing just x and y .

To establish the Non-Standard consistency of Pairing, it has to be shown that the regular version of Pairing is correctly conceivable and therefore Non-Standardly contingent, even if PairingAA expresses an essential truth about being a set. If we assume that this is the case, Pairing could still fail to be Non-Standardly contingent if the proposition \langle Sets exist \rangle turned out to be essentially true. Why? Because it and PairingAA together imply Pairing, so if both were essentially true, the essential truths about being a set would imply a contradiction together with the negation of Pairing, i.e. the negation of Pairing would not be correctly conceivable. The argument for the Non-Standard Contingency of Pairing can therefore only go through if \langle Sets exist \rangle is not an essential truth. Indeed it isn't, since it, just like Pairing, fails to conform to the AAA. As Rosen remarks, it is a consequence of the Non-Standard Conception 'that the existential truths of mathematics and metaphysics are uniformly contingent.' (Rosen (2006), p. 24, footnote 10.)

The case for the Non-Standard possibility of Pairing itself is even more straightforward, since the assumption that PairingAA is an essential truth cannot undermine its consistency with the essential truths. So, to summarize, even if the AAA-conform version of Pairing is an essential truth, both Pairing and its negation are Non-Standardly possible, which means that Pairing is Non-Standardly contingent.

It is worth remarking that the point of the Contingentist Argument is not that the Non-Standard Conception cannot account for e.g. the intuition that Pairing is metaphysically necessary. It can, since AAA-conform propositions like PairingAA are eligible to be essentially true. All Rosen's overall argument requires it to do is to establish the Non-Standard contingency of some propositions which are Standard necessities.

4 The Overgeneration Problem

In this section, I will argue that given the Non-Standard Conception as characterized in the paper so far, Rosen's argument fails to establish its intended conclusion that the notion of metaphysical modality is ambiguous. To do this, I will show that there is an ambiguity in the AAA neither of whose two disambiguations plays well with the Contingentist Argument: The first fails to support a crucial premise and the second

gives us a version of the argument which establishes more than it is supposed to do in the context of Rosen's main argument.

The crucial ambiguity lies in the notion of essence and in order to show why it affects the Non-Standard Conception, I will now argue that the Non-Standard Definition is extensionally equivalent to a particular version of the Essentialist definition of metaphysical necessity.

4.1 Correct Conceivability and Essentiality

The basic idea of the Essentialist theory of modality is that modality is reducible to or explainable in terms of a primitive notion of essence. Essentialism has first been proposed in Fine (1994), but the version of the view which is most pertinent in the current context is the GO-view of Correia (2006). According to the GO-view, a proposition is metaphysically necessary if, and only if, there are either objects, features, or objects and features of objects, such that p is true in virtue of their nature.¹¹ This definition involves the primitive, consequential essentialist notion 'true in virtue of their nature' of Fine (1994) and Fine (1995) and accommodates the idea that there are plural essences, collective essences of several entities.¹²

Since it both plays a crucial role in this definition and in the main argument of this section, I will now explain the notion of consequential essentiality in a bit more detail. The binary distinction between it and *constitutive essentiality* was first introduced by Fine. (See Fine (1995), pp. 56ff.) The latter captures the intuitive notion of essence which philosophers usually rely on when they make or reject claims about what is essential to a particular object. A philosopher might for example claim that being rational is essential to being human, or that the number two is essentially prime, or, to use the Finean re-formulation of these claims, that it is true in virtue of the nature of the feature of being human that all humans are rational and that it is true in virtue of the nature of the number two that it is prime. Such claims, read as claims of constitutive essentiality, express brute essential truths, i.e. propositions which express essential truths about particular objects or features and for which the fact that they do cannot be explained on the basis of other propositions which express essential truths about the same objects or features. Claims about essences of this sort play an important role in the literature on Essentialism, Fine (1994)'s argument against the modal definition of essentiality being

¹¹The label 'GO' indicates that the definition takes into account both generic and objectual essence, i.e. the essences of objects and features. In the following, I will abbreviate the phrase 'objects, features of objects, or objects and features of objects' to 'objects or features'.

¹²For the sake of ease of expression, I will not always use Fine's notion to express essentialist claims. Any such claim is straightforwardly translatable into a claim involving it.

a prime example.

The notion of *consequential* essentiality in contrast applies to propositions which have the status of being essential truths because they are logically entailed by other propositions which have this same status. The propositions ⟨All humans are rational or happy⟩ and ⟨If the number two is called ‘deux’ in French, it is prime⟩ for example are, to use Fine’s terminology again, consequentially true in virtue of the natures of the feature of being human and of the number two respectively, because they are logically entailed by the two examples of constitutive essential truths which were given above. While consequential essential truths have this status only derivatively in virtue of being entailed by other essential truths, they play an important theoretical role in the Essentialist theory of modality. The main idea of the Essentialist definition of metaphysical necessity is that a proposition expresses a metaphysical necessity if, and only if, it is true in virtue of the nature of some objects, features, or features and objects. If ‘true in virtue of the nature of’ here expressed constitutive essentiality, then the Essentialist definition could not account for the metaphysical necessity of the number two’s being prime if called ‘deux’ in French. The problem is that metaphysical necessity is closed under logical consequence, i.e. that any logical consequence of a proposition which expresses a metaphysical necessity also expresses a metaphysical necessity (see Nolan (2011), p. 314), but that the constitutive reading of ‘being true in virtue of the nature of’ is not. To address this problem the Essentialist definition relies on the consequential notion of essence, taking both the constitutively essential truths about object, features, and objects and features and their logical consequences into account, ensuring that there is no gap between what we expect to be metaphysically necessary and what the Essentialist definitions delivers.¹³ In a nutshell, the main idea of Essentialism is that to be metaphysically necessary is to be an essentially true proposition, or to follow from one or more propositions which are.

In his discussion of the Non-Standard Conception, Rosen points out that the correct conceivability-based definition of Non-Standard necessity can be simplified by factoring out the ideally informed conceiver, since this observer merely acts as an ‘infallible detector of latent absurdity.’ (Rosen (2006), p. 23.) It should here be mentioned that in the context of Rosen (2006), ‘latent absurdity’ is taken to be nothing else than (classical) logical contradictoriness. I will come back to this assumption in section 5.

Once the ideally informed conceiver is factored out, we get the following definition of Non-Standard possibility: A proposition p expresses a metaphysical possibility if, and

¹³Note that I here slightly deviate from Fine (1995) in how I draw the distinction between consequential and constitutive essentiality, since one may read Fine as defining the distinction as exclusive. My inclusive reading of consequential essence simplifies the discussion and is harmless in this context.

only if, p is consistent with the essences of all objects or features. A crucial question about this definition is what it means to be consistent with the essences. The correct answer requires two assumptions. First, the Finean assumption that we can use propositions to represent essences. (See Fine (1994), Fine (1995).) Second, that we can define the relative consistency of a proposition with certain other propositions in terms of logical entailment and contradiction, in the following way: A proposition p is consistent with some propositions pp iff p together with pp (i.e. the plurality of propositions made up of the pp and p) does not logically entail a contradiction. This standard assumption about consistency immediately gives us the form of the more precise statement of the definition of Non-Standard possibility: If we let Γ be a constant referring to all propositions which express essential truths, a proposition p is consistent with the essences of all objects or features iff p together with all propositions in Γ fails to logically entail a contradiction. Γ is here taken to refer to a plurality rather than a set of propositions, following the GO-view, which relies on plural logic. Using \cup for the plural equivalent to set-union,¹⁴ \models for the notion of logical entailment, and \perp for contradiction, we may state the fully explicit version of the definition of Non-Standard possibility as follows:

NS \diamond A proposition p expresses a metaphysical possibility if, and only if, $\Gamma \cup p \not\models \perp$.

I will now argue that NS \diamond is extensionally equivalent to the Essentialist definitions of metaphysical necessity proposed by Correia in Correia (2006) (i.e. the Go-view)¹⁵:

(E \square) A proposition p expresses a metaphysical necessity if, and only if, there are $\phi\phi$, such that p is consequentially true in virtue of the nature of the $\phi\phi$.

$\phi\phi$ plurally refers to either objects, features, or objects and features and objects. Given the standard assumptions that ‘it is metaphysically possible that p ’ is equivalent to ‘it is not metaphysically necessary that not- p ’, the corresponding Essentialist definition of metaphysical possibility is:

(E \diamond) A proposition p is metaphysically possible if, and only if, there are no $\phi\phi$, such that $\neg p$ is consequentially true in virtue of the nature of the $\phi\phi$.

To show that E \diamond and NS \diamond are equivalent, we need an assumption which Rosen explicitly grants, when he calls the Non-Standard Conception an application of Fine’s

¹⁴See Oliver and Smiley (2013), section 12.7 for a definition.

¹⁵Note that it is also equivalent to a modified version of Correia (2012)’s definition which in addition to the basic natures/constitutive essences of objects also takes the basic natures of features (and objects and features) into account, for parallel reasons.

Essentialist framework,¹⁶ namely that Rosen’s Non-Standard Definition of metaphysical possibility and the Essentialist definition of metaphysical necessity both involve the exact same notion of essence. Once this assumption is granted, it follows that claims in which we use Γ to refer to all essential truths and claims in which we rely on quantification into Fine’s notion ‘true in virtue of the nature of’ are, at least in principle, intertranslatable, since they share the same subject matter. This means that, all one need to show to establish that the two definitions are equivalent (i.e. that a proposition satisfies the right-hand side of $E\Diamond$ if, and only if, it satisfies the right-hand side of $NS\Diamond$) is that the right-hand sides/definiens of the two are in fact intertranslatable. This is what I will do now, focusing on one direction of the translation. Since translation is symmetric, this suffices to establish the equivalence:

The right-hand side of $E\Diamond$ says that $\Gamma \cup p \not\vdash \perp$, i.e. that if we take p and Γ together, the resulting plurality of proposition does not entail a contradiction. This means that p is consistent with Γ , which in turn means that $\Gamma \not\vdash \neg p$, i.e. that Γ does not entail $\neg p$ (since if it did, it would be inconsistent with p). To refer to Γ , i.e. to all propositions which express essential truths, in the Finean Essentialist framework, we use quantification into the object/feature slot of ‘true in virtue of the nature of’. Since we are working with the consequential reading of Fine’s primitive Essentialist notion which takes all logical consequences of essential truths into account, we can translate $\Gamma \models p$ to: ‘there are $\phi\phi$, such that p is consequentially true in virtue of the nature of $\phi\phi$.¹⁷ Accordingly, $\Gamma \not\vdash p$ translates to: ‘there are no $\phi\phi$, such that p is consequentially true in virtue of the nature of $\phi\phi$ ’ and a simple substitution of $\neg p$ for p on both sides of the biconditional, we get: ‘there are no $\phi\phi$, such that $\neg p$ is consequentially true in virtue of the nature of $\phi\phi$ ’ on its right-hand side. Since this is exactly the right-hand side of $E\Diamond$, this completes the equivalence argument.

What is the significance of this equivalence? The focus in this paper is on the Contingentist Argument, which crucially involves Essentialist claims which are framed in the terms of the Non-Standard Conception, i.e. in terms of consistency with the essences. That these claims are equivalent to Essentialist claims made using the consequential reading of Fine’s notion of ‘true in virtue of the nature of’ a) legitimises the Non-Standard Definition as a genuine definition of metaphysical possibility, b) illustrates that we can translate claims made using Fine’s notion ‘true in virtue of the nature of’ into claims

¹⁶See Rosen (2006), p. 24, footnote 10. Note that this footnote already appears to hint at the equivalence for which I am now going to provide an argument.

¹⁷That $\Gamma \models p$ either means that $p \in \Gamma$ or that $p \notin \Gamma \wedge \Gamma \models p$, i.e. that p is either a trivial or a non-trivial logical consequence of the propositions in Γ . Given the assumed inclusive reading of ‘true in virtue of the nature of’, both of these sentences have the same Finean translation, the one stated above.

made using the Non-Standard theory's notion of consistency with the essences, and c) demonstrates that Fine's distinction between constitutive and consequential essentiality can be brought to bear on the Contingentist Argument. In the next section, I will rely on the latter two of these facts in order to set up my criticism of Rosen's argument for the ambiguity of metaphysical modality.

4.2 The Contingentist Argument and the Distinction Between Constitutive and Consequential Essence

In this subsection, I will first argue that there are two readings of the AAA, then that only one of them is strong enough to render the Contingentist Argument sound, and finally that the resulting version of the argument fails to establish Rosen's conclusion that the notion of metaphysical modality is systematically ambiguous.

The core ingredient to my argument is the distinction between constitutive and consequential essence, which has already been introduced in the previous subsection. Given the equivalence of the Essentialist and the Non-Standard Definitions of metaphysical possibility, we can ask about all Essentialist claims made in the Contingentist Argument whether we should understand them as claims about constitutive or consequential essence. I will first look at $NS\Diamond$ and the AAA, the two main claims about essence which are needed to support the premises of the argument and afterwards at the premises themselves, using a schematic version of the argument.

As I have already pointed out, $E\Diamond$ involves the consequential notion. Since $NS\Diamond$ can be shown to be equivalent to $E\Diamond$ if it is assumed to involve the same notion, and since this assumption can in case of $NS\Diamond$ be motivated by the same considerations as in case of $E\Diamond$ (see section 4.1), we can assume that it holds.

What about the AAA then? Recall that the AAA requires that the propositions involved in the essences of objects or features have to have the form of a material conditional with an existence claim in its antecedent. If we apply the constitutive/consequential essence-distinction to the AAA, we end up with two different versions of the AAA.

The first places its requirement only on those propositions which express the constitutive essence of objects or features, but not on those propositions which only express consequential essential truths, i.e. which do not themselves express the constitutive essence of objects or features, but are logical consequences of propositions which do. To give an example, according to this first, weaker reading, the AAA tells us that the proposition which captures that Pairing expresses a constitutively essential truth about sets is PairingAA and not Pairing itself, but it in principle allows that Pairing expresses a consequential essential truth.

The second, stronger version of the AAA places its requirement on all propositions which express consequential essential truths about objects or features. Given the inclusive way of drawing the distinction adopted in this paper, this means that the requirement is placed on all propositions which express the constitutive and also on all propositions which express the consequential essence of some objects or features, i.e. to all propositions which express essential truths whatsoever. According to this consequential reading of the AAA, Pairing can neither express a constitutive, nor a consequential essential truth about objects or features.¹⁸

¹⁸Note that this characterization of the two versions of the AAA presupposes that the AAA is applied to an already existing stock of constitutive or consequential essential truths. The AAA can accordingly be thought of as an algorithm which operates on a class of propositions which express essential truths as its input. In a first step, it checks whether these propositions conform to the constraint it places on their form and content. The second step is sensitive to whether the input propositions already conform to the AAA: If a proposition does conform to the constraint, it is directly put into the output class of AAA-conform propositions. If it does not conform to the condition, it is translated into a proposition which does by turning the proposition into the consequent of a conditional proposition and adding a suitable existential claim in the antecedent. (This of course leaves some room for what ‘suitable’ means, since the existential claim can be about different objects or features.) The two versions of the AAA result from different inputs, the first taking only the propositions which express constitutively essential truths as input, the second also those which express purely consequential essential truths. This understanding of the AAA can be called the *a posteriori view*, since according to it, the AAA is applied to an a priori existing stock of essential truths. There is a second, wholly different way of thinking about the AAA. According to it, the AAA should not be thought of as an algorithm which is applied to an existing stock of essential truths, but rather as expressing a *precondition* for what it takes for a proposition to express such a truth. For the constitutive reading of the AAA, this does not make a substantive difference, since both the a posteriori view and the precondition-view will deliver the same class of AAA-conform propositions if the essences are the same. It does however make a substantial difference for the consequential reading of the AAA. Given the a posteriori-view, to generate the AAA-conform propositions which express constitutively essential truths, we take those propositions which follow from the propositions which capture the essences of objects and features *before* the AAA is applied to them and then apply the AAA to them. Assume for example that it is constitutively essential to being a proper class that sets exist. The corresponding proposition ⟨Sets exist⟩ is, like any proposition, trivially a logical consequence of itself. This means that without the AAA, it would both capture an aspect of the constitutive and the consequential essence of being a proper class. According to the a posteriori-view, the constitutive reading of the AAA disqualifies this proposition from expressing a constitutively essential truth, but at the same time leaves it in the class of propositions which express consequential essential truths. The consequential reading of the AAA furthermore disqualifies it from belonging to that class. Contrast this with the precondition-view: According to it, the proposition ⟨Sets exist⟩ and its logical consequences are completely irrelevant when it comes to which propositions belong to the class of the consequentially essential truths. This is because the class of constitutive essential truths which generate the logical consequences which in turn make up the consequentially essential truths consist exclusively of AAA-conform propositions, i.e. propositions which have the logical forms of material conditionals with existence claim in the antecedent. So instead of ⟨Sets exist⟩, only propositions such as e.g. ⟨If proper classes exist, sets exist⟩ matter for determining the consequential essential truths. This means that the class of these truths is very limited compared to the a posteriori-view, since the class of the logical consequences of a class of material conditionals with existential claims in the antecedent is very limited. To give an example of the sort of propositions which can end up expressing a consequential essential truth, consider e.g. the conditional proposition just mentioned and assume that it and e.g. ⟨If sets exist, the empty set

Since there are two relevant readings of the AAA, a weaker constitutive, and a stronger consequential reading, we can now ask which of them one needs to run the Contingentist Argument. The following schematic version of the argument can be used to answer the question:

- 1 Neither p , nor its negation $\neg p$ are constitutively true in virtue of the nature of some objects or features. (AAA)
- 2 p or $\neg p$ might still be consequentially true in virtue of the nature of some objects or features in the following two cases:¹⁹
 - 2.i There are some objects or features such that it is true in virtue of their consequential nature that if they exist, then p and that they do exist is true in virtue of their own consequential nature or that of some other objects or features. (Rosen's third case)
 - 2.ii There are some objects or features such that it is true in virtue of their consequential nature that if they exist, then $\neg p$ and that they do exist is true in virtue of their own consequential nature or that of some other objects or features. (Rosen's first case)²⁰

exists) express constitutively essential truths. The two proposition together logically entail (If proper classes exist, the empty set exists) which would accordingly express a consequentially essential truth. It should be clear from this that the a posteriori-view gives us a more charitable interpretation of the Non-Standard Conception. Note that the following first schematic version of the Contingentist Argument presupposes this view. The relevant version of the argument given the the precondition-view is the Abbreviated Argument introduced at the end of this subsection.

¹⁹I will again follow Rosen (2006), pp. 24f in assuming that if the essences are silent on whether p is true, then p is trivially Non-Standardly contingent, but will, for the sake of generality, explicitly include the case that the essential truths entail that $\neg p$.

²⁰Note that if the argument is run for a proposition which either makes a simple existential claim (i.e. has the logical form $\exists xx Fxx$ or $\exists xx (xx = aa)$, where aa is a constant assigned to one or more objects) or expresses the negation of such a claim, things get more complicated. Rosen's statement of the argument focuses on a case in which we have an AAA-conform conditional proposition and the proposition expressing its antecedent which together entail the proposition expressing its consequent (i.e. on the two cases 2.i and 2.ii). I.e. the focus is on cases in which the rule of inference Modus Ponens is applied to establish the essential truth of the consequent of a conditional proposition based on the essential truth of the conditional proposition and its antecedent. If p expressed a simple existence claim of the sort which can occur as the antecedent of an AAA-conform proposition, it would also be possible to derive $\neg p$ by an application of Modus Tollens. This would give us two further cases to consider in step 2:

- 2.iii There are some objects or features such that it is true in virtue of their consequential nature that if p , then q and $\neg q$ is true in virtue of their own consequential nature or that of some other objects or features.
- 2.iv There are some objects or features such that it is true in virtue of their consequential nature that if $\neg p$, then q and $\neg q$ is true in virtue of their own consequential nature or that of some other objects or features.

- 3 For any objects or features, that they do exist is neither true in virtue of their own constitutive nature nor that of some other objects or features. (AAA)²¹
- 4 For any objects or features, that they do exist is neither true in virtue of their own consequential nature nor that of some other objects or features. (AAA)
- 5 There are no objects or features such that it is true in virtue of their consequential nature that p . (2.i,4)
- 6 There are no objects or features such that it is true in virtue of their consequential nature that $\neg p$. (2.ii,4)
- 7 p is consistent with the natures of all objects or features and $\neg p$ is consistent with the natures of all objects or features. (5,6,translatability)
- 8 It is Non-Standardly contingent that p . (7, definition of Non-Standard possibility)

In the previous statement of the argument, I pointed out that even if we assume that Pairing considered on its own failed to be an essential truth, it could still have this status in virtue of being entailed by other essential truths. The new, schematic version spells this out using the notion of consequential essence in premise 2 and its two sub-premises.

Before more about the argument is said, it should be pointed out that the propositional variable p in the schematic argument of course only ranges over propositions which do not themselves conform to the AAA. Otherwise, the Anti-Anselmian assumption could obviously not support the relevant premises. With this clarification kept in mind, I will now argue that this schematic version of the Contingentist Argument requires the consequential reading of the AAA.

The argument relies on the AAA in order to justify three of its premises, namely premises 1, 3, and 4. Can the weaker, constitutive reading of the AAA support all three? No, since this reading only guarantees the truth of premises 1 and 3, which are purely concerned with whether the propositions in question express constitutively essential truths. It cannot guarantee the truth of premise 4, since this premise makes

To successfully run the argument, a proponent of the Non-Standard Conception would therefore also have to establish that no matter what q stands for, its negation does not express an essential truth. Since my aim here is not to defend Rosen's argument and since this complication does not affect my point that the consequential rather than the constitutive reading of the AAA is needed in order to run the argument, I will not discuss this complication any further.

²¹Note that premise 3 is entailed by premise 4 given the inclusive reading of the constitutive/consequential essence-distinction which I presuppose and is therefore not really needed. It is included for illustrative purposes as will become clear shortly.

a claim about the *consequential* essences of objects and features. This means that the constitutive reading of the AAA is not strong enough to run the Contingentist Argument.

The stronger reading of the AAA in terms of consequential essence in contrast fares better, as it guarantees not only the truth of premises 1 and 3, but also of 4. Proponents of the Non-Standard Conception should therefore accept the consequential, rather than the constitutive reading of the AAA.

To illustrate these claims, it might be useful to go through an instance of the argument in a bit more detail. Let us for this purpose assume that we are Non-Standard theorists and want to use the argument to show that Pairing is Non-Standardly contingent. Since neither this proposition, nor its negation (\langle There are some things x and y such that there exists no set containing just x and y \rangle) conform to the AAA, we get a true instance of premise 1. This is supported by both versions of the AAA, since both apply to all propositions which express constitutively essential truths about objects or features.

Now we move on to premise 2 to check whether the proposition or its negation might still express a consequential truth about some objects or features. This could happen if they were logically entailed by some propositions which express consequentially essential truths.²² We therefore now have to consider under which conditions this could happen. Since we accept either the constitutive or the consequential version of the AAA, we know that this entailment is subject to the following condition: The propositions which form the basis for the first segment (the constitutively essential truths) in a possible chain of logical entailments which ends with Pairing (or its negation) conform to the AAA.

We have already established that neither Pairing, nor its negation can be among the propositions at this first segment (premise 1) and we know that neither Pairing, nor its negation, can occur as the antecedent of any of these propositions either, since neither expresses the sort of simple existence claim AAA-conform propositions have as their antecedents.²³ This means, that Pairing (or its negation) would either have to be the consequent of one of these propositions (giving us e.g. PairingAA in case of Pairing), or it (or its negation) would have to be involved in a proposition which is the consequent of one of these propositions.

²²Recall that we are working with the inclusive reading of ‘consequential’ which includes the constitutively essential truths.

²³Note that the negation of Pairing does express a complex existence claim, but that all textual evidence points towards reading the AAA as requiring the antecedent of essentially true propositions to express (on their own) simple existence claims, i.e. propositions of the logical form $\exists xx Fxx$, where F is a logically simple predicate or of the form $\exists xx(aa = xx)$, where aa is a constant. Without this very plausible reading of the AAA, the instance of the argument for Pairing would have to go through step 2.iv mentioned in footnote 20. It is likely that further modifications of the AAA or other assumptions would be needed to get a sound instance of the argument.

This gives us the two cases 2.i and 2.ii which we have to exclude: Pairing (or its negation) could express a consequentially essential truth about some objects or features if the antecedent of the proposition in whose consequent it appears were to be also present at the penultimate segment of the chain of entailments. Note now that the constitutive version of the AAA can only exclude cases 2.i and 2.ii if they occur at the very first segment of the chain of entailments, i.e. at its base of constitutively essential AAA-conform propositions, since it only applies to these proposition. This however, is insufficient, since it might be the case that Pairing (or its negation) could be properly contained in a proposition in the consequent of one of these propositions. In that case, the chain could still terminate in Pairing (or its negation), because cases 2.i and 2.ii might arise at a later segment, rendering Pairing Non-Standardly necessary (or impossible, if the chain terminates in its negation), even though the constitutive version of the AAA holds.

Here is an example of how this could happen: Assume that the following AAA-conform propositions express essential truths: $\langle \text{If sets exists, then there are some things } x \text{ and } y \text{ such that there exists a set containing just } x \text{ and } y \rangle$, $\langle \text{If the empty set exists, then sets exist} \rangle$. The first is PairingAA for which we are granting that it expresses an essential truth about e.g. being a set in the scenario described in 2.i. The second plausibly expresses an essential truth about the empty set. Now the antecedent of the latter proposition expresses a (classical) logical truth, since it has the logical form $\exists xx(e = xx)$, where e is a constant designating the empty set. This means that the proposition expressing its antecedent $\langle \text{The empty set exists} \rangle$ expresses a consequentially essential truth about all objects and features, since it is trivially entailed by any proposition. As a consequence, we can apply Modus Ponens to get $\langle \text{Sets exist} \rangle$ from the latter proposition together with $\langle \text{If the empty set exists, then sets exist} \rangle$, which means that $\langle \text{Sets exist} \rangle$ expresses a consequentially essential truth. Finally, we apply Modus Ponens again to $\langle \text{Sets exist} \rangle$ and PairingAA to establish that Pairing expresses a consequentially essential truth.

Since in this scenario, Pairing would satisfy the Non-Standard definition of metaphysical necessity (because it is logically entailed by the essences), our attempt to establish the Non-Standard contingency of Pairing would be thwarted. In order to establish out desired conclusion, we therefore need to preclude scenarios of this sort.

This brings us to premise 3. It says that no simple existence claim of the sort which can be the antecedent of an AAA-conform conditional expresses a constitutively essential truth. The truth of this premise is supported by the constitutive reading of the AAA. However, as we have just seen when considering premise 2, this is not enough to exclude

that Pairing expresses an essential truth, since it could happen that these existence propositions express consequentially essential truths, even though they fail to express constitutively essential truths. To rule out these cases, we in addition need premise 4 to be true. It says that these existence propositions cannot even express consequentially essential truths. This e.g. rules out the existence of the discussed chain of entailments from the propositions which express constitutively essential truths to Pairing: It ensures that only AAA-conform propositions can occur at any segment of this chain, which in particular means that this holds for $\langle \text{Sets exist} \rangle$ and any other simple existence proposition. So by accepting the strong reading of the AAA, we can rule out the described scenario and establish the truth of the instance of 4 for Pairing.

The remaining steps of the argument are then straight-forward. We get premises 5 and 6 from 4, since 4 allows us to rule out the undermining scenarios described in 2.1 and 2.ii. Then we translate the Finean claims of 5 and 6 into claims about the consistency of Pairing and its negation with the essences and form the conjunction of the translated versions to get 7 and apply the Non-Standard Definition of metaphysical possibility to establish the Non-Standard contingency of Pairing.

To summarize, the constitutive version of the AAA is not strong enough to support all essential premises of the argument, so the stronger, consequential reading of the AAA is needed. This brings me to the second main point of this section: Given the strong reading of the AAA, premises 2-6 of the argument are superfluous and can be eliminated from the argument, since the strong version of the AAA directly entails a stronger version of premise 1: If the AAA applies not only to the propositions which express constitutively essential truths, but also to those which express consequentially essential truths, there is simply no way for a non-AAA-conform proposition to express an essential truth, since the distinction between constitutive and consequential essence is exhaustive with respect to the essential truths. This means it places a necessary condition on expressing an essential truth. As we have seen, there are possible scenarios in which a non-AAA-conform proposition is logically entailed by a set of propositions which are all AAA-conform, but these scenarios are rendered irrelevant by the strong reading of the AAA, since it prevents these particular propositions from expressing essential truths, even though they would do so without the AAA or given its weak, constitutive version. For this reason, the stronger version of premise 1 directly establishes the truth of premise 7 of the schematic version of the argument, which says that neither the relevant proposition, nor its negation are inconsistent with the essences. Premise 7 in turn implies the conclusion of the argument.

To see the bigger picture in the background, it is useful to recall that, as argued for in

the previous section, the Non-Standard Definition of metaphysical possibility is in perfect agreement with the Essentialist definition of the same notion and by extension also with the Essentialist definitions of metaphysical necessity and impossibility. In the context of the Non-Standard definition/Essentialist definition, to express a necessity means to express an essential truth and to express an impossibility means to have a negation which expresses an essential truth. In general, a proposition is contingent if, and only if, it neither expresses a necessity, nor an impossibility. Since the strong AAA places its constraint on all essential truths, constitutive as well as consequential, adding it to the Non-Standard definition of metaphysical possibility amounts to adding a necessary condition for being Non-Standardly non-contingent:²⁴ Only those propositions qualify, which either themselves conform to the AAA or express the negation of a proposition which does. All others are Non-Standardly contingent, or in other words, if both p and $\neg p$ diverge from the AAA, p expresses a Non-Standard contingency. We hence arrive at an abbreviated schematic version of the argument, the *Abbreviated Argument*:

- 1a Neither p , nor its negation $\neg p$ are consequentially true in virtue of the nature of some objects or features. (Strong AAA)
- 2a p is consistent with the natures of all objects or features and $\neg p$ is consistent with the natures of all objects or features. (1a, translatability)
- 3a It is Non-Standardly contingent that p . (2a, definition of Non-Standard possibility)

4.3 The Abbreviated Argument Overgenerates

It might seem that the Abbreviated Argument offers Rosen a welcome short-cut to his conclusion. I will now argue that it instead leads directly into an overgeneration problem which undermines Rosen's overall argument. The argument does indeed establish the Non-Standard contingency of the (non-AAA-conform) propositions in the differential class. Neither Pairing nor its negation conform to the AAA, so the argument shows that both are Non-Standardly contingent, and similarly for the other propositions in this class.

The problem is that the Abbreviated Argument delivers further Non-Standardly contingent truths which, for the purposes of Rosen's argument, should rather be Non-Standardly necessary. Recall that Rosen premises his argument for the ambiguity of

²⁴The condition is plausibly not sufficient, since not all AAA-conform proposition are such that they or their negation express an essential truth about some objects or features. Consider e.g. (If the Louvre exists, someone will run through it in record time).

metaphysical necessity on the claim that both the Standard and the Non-Standard Conceptions equally well conform to the informal elucidation which classifies ‘the (non-indexical) logical truths and the conceptual truths more generally’ and ‘the uncontroversial Kripkean necessities: (propositions expressed by) true identities flanked by rigid terms and essential predications: propositions of the form Fa , where a is essentially F ’ (Rosen (2006), p. 18) as metaphysically necessary. Almost all propositions of these sorts can be shown to be Non-Standardly contingent via the abbreviated argument. Given the Abbreviated Argument, any proposition which fails to conform to the AAA is Non-Standardly contingent. This in particular includes most classical logical truths and their logical implications, such as e.g. $\langle \text{Socrates is human or Socrates is not human} \rangle$. The same holds for most conceptual truths. Consider a particularly pertinent example, the set-theoretic axiom of extensionality, which says that two sets are identical if, and only if, they have the same elements. Rosen explicitly contrasts the axiom with Pairing, saying that unlike Pairing, it is ‘plausibly analytic’ (Rosen (2006), p. 18), i.e. conceptually true and that it should therefore qualify as metaphysically necessary even by the standards of the Non-Standard Conception. Since the axiom does not conform to the AAA, there is an instance of the Abbreviated Schematic argument which shows it to be Non-Standardly contingent. The same holds for Kripkean necessities, such as $\langle \text{Hesperus is Phosphorus} \rangle$ (true identities involving rigid designators)²⁵ and $\langle \text{Socrates is human} \rangle$ (essential predications).

The general point here is that the strong version of the AAA renders any proposition which fails to have the required form Non-Standardly contingent, including most of the propositions which are paradigm necessities according to the informal elucidation of metaphysical necessity. This means that, compared to the small departure required by Rosen’s argument, the Non-Standard Conception departs much too far from the informal elucidation.

To sum up the argument so far, we have seen that the Contingentist Argument requires the stronger, consequential reading of the AAA, but that the resulting version of the argument overgenerates, establishing a conclusion which is too strong for Rosen’s purposes. As Rosen himself points out, his argument for the ambiguity of our notion of

²⁵Note that Kripke’s famous proof for the necessity of identity statements, does not undermine this claim. As Burgess (2013) points out, Kripke assumes that the necessity-operator \Box expresses a weak notion of necessity, so that ‘[w]e can count statements as necessary if whenever the objects mentioned therein exist, the statement would be true.’ (Kripke (1971); cited from Burgess (2013), p. 1567.) This assumption is not satisfied if one interprets \Box as the Non-Standard necessity-operator, since e.g. all existence claims (including in particular mathematical existence claims such as the claim that sets exists) are weakly necessary in this sense, but are supposed to be Non-Standardly contingent according to the Non-Standard Conception. See also Rosen (2006), p. 24, footnote 10.

metaphysical modality requires that the Standard and the Non-Standard Conceptions of metaphysical modality both ‘fit the [informal] elucidation equally well.’ (Rosen (2006), p. 17.) Given the consequential reading of the AAA, the Non-Standard Conception does not meet this requirement.

5 Avoiding Overgeneration?

5.1 The Feature-Only-Version of the AAA

Can the overgeneration-problem for Rosen’s Non-Standard Conception be avoided? In this section, I will introduce and criticise two modifications of the Non-Standard Conception which promise to solve the problem.²⁶

So far, I have assumed that the AAA holds for the essences of both objects and features. As we have seen in the previous section, this reading leads to an overgeneration problem which ultimately undermines Rosen’s argument. The suggestion which I want to discuss in this section is that the argument can be saved by adopting a weaker version of the AAA which only applies to the essences of features.

This suggestion seems very promising: Given the feature-only-version of the AAA, the Abbreviated Argument cannot be used to establish the Non-Standard contingency of essential predications such as ⟨Socrates is human⟩ and true identities involving rigid singular terms such as ⟨Hesperus is Phosphorus⟩, since they plausibly express essential truths about Socrates and about the planet Venus respectively, i.e. about objects rather than features. These propositions do involve features, but they do not tell us anything about their natures. It is neither part of the essence of the feature of being human that Socrates is human, nor part of the essence of the feature of being identical to, that Hesperus is Phosphorus, i.e. that Venus is identical to Venus. The feature-only-version hence immediately solves part of the overgeneration problem, since it puts essential predications and identity claims involving rigid terms firmly outside the scope of the Abbreviated Argument.

That is not all. Combined with an additional assumption about the essences of concepts due to Fine (1994), p. 9, the feature-only AAA also safeguards the conceptual and logical truths from the Abbreviated Argument. The additional assumption says that when it comes to entities which have essences, concepts can be treated as objects. In Finean terms, to say that a proposition is true in virtue of the nature of the concept of being a bachelor is to say that it is true in virtue of the nature of an object. Given this

²⁶In developing the arguments of this section, I have greatly benefited from exchanges with Pierre Saint-Germier.

assumption, the classical logical truths and the conceptual truths like the extensionality axiom are immune to the Abbreviated Argument, because they are essential truths about objects, not about features.

It seems that adopting the feature-only version of the AAA is exactly what one needs to do in order to avoid the overgeneration problem. However, this modified version of the AAA alone is not enough to reinstate Rosen's argument. The AAA is supposed to support the first premise of the Abbreviated Argument, namely:

- 1a Neither p , nor its negation $\neg p$ are consequentially true in virtue of the nature of some objects or features. (Strong AAA)

The problem is that the feature-only-version of the AAA does not apply to the essences of objects and therefore fails to support the premise.²⁷ In order to run the argument based on the feature-only version of the AAA, a further premise is needed. If we add this premise, we get the following new version of the Abbreviated Argument:

- 1b Neither p , nor its negation $\neg p$ are consequentially true in virtue of the nature of some features. (Feature-only-version of the AAA)
- 2b Neither p , nor its negation $\neg p$ are consequentially true in virtue of the nature of some objects. (?)
- 3b p is consistent with the natures of all objects and features and $\neg p$ is consistent with the natures of all objects or features. (1b,2b)
- 4b It is Non-Standardly contingent that p . (3b, definition of Non-Standard possibility)

As indicated by the question mark, the crucial question about this version of the argument is that of the justification of premise 2b. There is a clear restriction on which potential sources of justification a defender of Rosen's can rely on: Rosen's overall argument requires that the Abbreviated Argument establishes the Non-Standard contingency of the propositions in the differential class. It would therefore clearly be question-begging to simply stipulate that any instance of 2b for a proposition in the differential class is true.

²⁷One might be tempted to object that the Non-Standard Definition could also be adjusted to take only the essences of features into account, since the feature-only-version of the AAA would support the resulting feature-only-version of premise 1a. This objection falls flat, since a feature-only-version of the Non-Standard Definition would partly re-introduce the overgeneration problem through the back door. According to this version of the definition, no proposition which expresses an essential truth about objects, but not about features can be Non-Standardly necessary. This plausibly includes both the essential predications and the true identities involving rigid designators.

The crucial task for a defender of Rosen's argument hence is to provide a non-question-begging justification for the truth of the relevant instances of premise 2b. To do this, they can of course still rely on the differential class in certain ways. They may for example identify a feature common to all propositions in the class and provide an independent, non-question-begging justification for why 2b is satisfied for propositions which have this feature. But is there such a feature? Recall that the characterisation consists of a list of traits shared by the propositions in this class: failing to be analytic, being palpably more a priori than a posteriori, having a non-absurd negation, categorically or conditionally entailing the existence of particular kinds of objects, concerning matters of basic ontology, and finally, being Standardly necessary. (See Rosen (2006), p. 19f.) These traits are much too diverse to identify, to use Lewis (1983)'s term, a single *natural* feature which is common to all propositions in the differential class. They could perhaps be claimed to describe a class held together by relations of family resemblance in the sense of Wittgenstein (1953), but this would of course not help in identifying a single feature they all share.

The best defenders of Rosen's argument can do is to retreat to the weaker claim that the Standard and the Non-Standard Conception differ regarding the modal status of a particular subclass of the differential class and that premise 2b of the new Abbreviated Argument is true for the propositions in this subclass. This gives them the leeway to argue that the mismatch between the two conceptions is still significant enough to support Rosen's conclusion that the notion of metaphysical modality is ambiguous. To pick out such a subclass, they may of course rely on one or perhaps more of the particular traits Rosen uses to characterize the differential class. As long as they don't simply use the full list, this is a viable move.

The two most promising candidates are that of being non-analytic and that of not having an absurd negation. The other traits are either too vague to pick out a definitive subclass (being palpably more a priori than a posteriori, concerning matters of basic ontology), overlap with the class of propositions the Non-Standard Conception classifies as metaphysically necessary (being Standardly necessary), or are too general to isolate a specific class of propositions (categorically or conditionally entailing the existence of a particular kind of object).

For the sake of simplicity, I will lump together the two remaining traits in the following discussion. This can be done, since failing to be analytic entails having a (conceptually) non-absurd negation and vice versa. I will hence from now on assume that the task of the defender of Rosen's argument is to argue that 2b is satisfied for the analytic propositions.

5.2 Two Ways of Building in Exceptions for Analytic Truths

There are two modifications of the Non-Standard Conception which guarantee the truth of premise 2b for the non-analytic propositions and its falsity for the analytic propositions, which seem viable at first sight. The first modification widens the scope of application of the AAA to the features and the objects which are not concepts. The idea underlying this modification is that given a broadly Finean view of essence, one may identify the propositions which are true in virtue of the nature of concepts, i.e. which express essential truths about concepts, with the analytic truths.²⁸

The advantage of this first modification is that it fully integrates analyticity with essence, since it treats analyticity as equivalent to a particular sort of essential truth. Its cost is that it renders some of the paradigm examples of metaphysical necessities included in the informal elucidation Non-Standardly contingent, namely the identities involving rigid designators and the essential predications. These propositions express essential truths about (non-conceptual) objects, if they express essential truths at all. This means that the AAA applies to them and that accordingly, their Non-Standard contingency can be established by the second version of the Abbreviated Argument. This first variant can hence only offer a partial solution to the overgeneration problem, so it would have to be supplemented by further arguments which show that the partial solution is sufficient to save Rosen's ambiguity-argument.

The second modification targets the Non-Standard Definition of metaphysical possibility. Recall that the definition says that p is metaphysically possible if, and only if, p does not give rise to a latent absurdity in conjunction with the essential truths. Following Rosen, I have so far assumed that 'latent absurdity' simply means logical contradiction. However, as Rosen himself points out, (see Rosen (2006), pp. 23-4, footnote 9) the Non-Standard Definition could alternatively incorporate a broader notion of absurdity.

²⁸As an exegetical sidenote, Fine does not explicitly endorse the idea of identifying analyticity with truth in virtue of the nature of concepts, even though he at length discusses the analogy between analyticity and essential truth in his informal papers on essence (Fine (1994), Fine (1995)). He strictly treats analyticity as a property of sentences and identifies it with truth in virtue of the meaning of terms, not concepts. This does of course not rule out that someone working within his framework, might accept this identification and one might even argue that Fine himself at least comes close to accepting it. In his discussion of the parallel between analyticity and essence, Fine introduces the distinction between thin and thick words, where a thick word is a word (presumably a word-type) plus its meaning. Analytic truths generally involve words which one might assume to have concepts as their meanings. Given this assumption and Fine's claim that 'in giving a definition we are giving an essence—though not now of the word itself, but of its meaning' (Fine (1994), p. 13), one might read Fine's definition of analyticity as defining the notion in terms of truth in virtue of the nature of thick words. This interpretation at least strongly suggests the identification. Note also that independently of this interpretation of Fine (1994), Russell (2011), p. 13 and footnote 9, p. 150 reads Fine as accepting the identification.

The idea of the second modification is to broaden the notion to not only include the logical, but also the conceptually absurd. As a result of the modification, the conceptual or analytically true propositions are Non-Standardly necessary, since their negations are (or are entailed by) propositions which express essential truths. This blocks the step from 3b to 4b in the corresponding instances of the second version of the Abbreviated Argument, since logical consistency with the essences is no longer enough to satisfy the Non-Standard Definition.

An important advantage of the second modification is that it completely avoids the overgeneration problem. Its main disadvantage is that it does not integrate the notions of analyticity and of essence. Instead, it de facto introduces latent absurdity as a second source of modality: It allows propositions which do not capture the essence of any object or feature, but which have a conceptually absurd negation to satisfy the Non-Standard Definition of necessity. Two difficulties with theories of modality which introduce two sources of modality are that they give rise to difficult metaphysical questions about modality (e.g. How can the two distinct and presumably independent sources ground an apparently homogeneous phenomenon such as modality? Are there cases of modal overdetermination and if so, are they harmless?) and that they need to include an assumption to the effect that the two sources cohere, i.e. do not assign conflicting modal statuses to propositions, but appear to have no good basis for justifying this assumption. Regarding the second modification, the latter assumption is particularly important, since it is needed to ensure that negations of conceptual truths do not express essential truths about objects and vice versa in order to avoid incoherences within the Non-Standard Conception. Defenders of Rosen's argument who settle for the second modification hence are placed in a difficult dialectical situation.

5.3 The Problem With Built-in Exceptions for Analytic Truths

In the last section, I already pointed out a problem for each of the two modifications. In this section, I will raise a general objection which affects both, namely that both carry commitment to the problematic view that certain formal concepts misrepresent the features they are supposed to capture.

To make this point, let me (again) focus on the extensionality axiom of set theory, which says that sets are identical iff they have the same elements. According to Rosen, the axiom is an analytic truth and therefore metaphysically necessary. The axiom does not conform to the AAA, so it cannot express a consequentially essential truth about the feature of being a set. According to the first modification, the axiom is still Non-Standardly necessary, because it expresses an essential truth about the concept of being a

set, conceived of as an object. According to the second, it has this modal status because its negation is a conceptual absurdity. This means that the modifications force one to accept that the essence of the feature of being a set diverges either from the essence of the concept, conceived of as an object, of being a set (first modification), or from what the conceptual absurdities fix about that concept (second modification).

The problem is that the essence of the concept, or its meaning as negatively determined by certain absurdities, should conform to the essence of the feature in the following strong sense. For any proposition, save for those pertaining to the specific ontological status of concepts and features, if it is an essential truth about the feature, it is also an essential truth about the concept. This principle is a consequence of a more general principle about the relation between concepts and the features to which they correspond: The essence of a concept (or in case of the second modification, the relevant set of absurdities which negatively characterize a concept) captures its meaning and if the concept corresponds to a feature, then the meaning should, regarding the essential qualitative character it captures, match the feature.²⁹ If the two do not match, then there is something wrong with the concept.

This principle admits of certain exceptions. If one for example assumes that there are absurd or self-contradictory concepts, then it should plausibly be restricted to the non-absurd and non-contradictory concepts. One might also argue that there are other cases in which we should allow concepts and their corresponding features to diverge in the relevant way. The essence/meaning as negatively characterized by a set of absurdities of the concept of being water might for example be argued to diverge from the essence of the feature of being water, since the former tracks certain surface feature of water, while the latter tracks its microphysical structure. The idea here is that the exception is granted, because our water-concept is an imprecise, but heuristically useful classification device applied in ordinary reasoning and as such does not have to perfectly match the essence of the feature of being water.

The crucial point here is however that the concept of being a set warrants no such exception. It is neither absurd nor self-contradictory, nor an imprecise, but heuristically useful concept. Recall that the concept at issue is the concept characterized by axiomatic set theory and not the naive, contradictory concept of being a set. This concept is a formal concept, a concept which is precisely defined and guarded against contradiction.³⁰

²⁹The principle captures the idea that concepts essentially represent something, echoing the very common view that concepts are mental representations. See Margolis and Laurence (2014), section 1.1 for an overview and references.

³⁰Note that one might still object that the divergence, while in principle problematic, is not substantial enough to pose a real problem. The idea underlying this objection is that PairingAA, which per

To summarize, both of the two proposed modifications entail that the concept of being a set misrepresents the feature of being a set even though this should not be the case.³¹ This means that neither of the two modifications provides a solid foundation for a solution to the overgeneration problem which undermines Rosen’s ambiguity-argument.

6 The Abbreviated Argument as an Argument for Metaphysical Contingentism

The Contingentist Argument has also been used as an argument for Metaphysical Contingentism, the controversial view that certain fundamental metaphysical claims are metaphysically contingent rather than necessary. Miller (2009) in particular has explicitly relied on Rosen’s Contingentist Argument to argue for the metaphysical contingency of Monism, the view that there is only one existing (see e.g. Horgan and Potrč (2000)) or one fundamental (see Schaffer (2010)) concrete object. In light of the arguments of the previous two sections, can it still serve this function?

Two factors diminish the appeal of the Contingentist Argument as an argument for Metaphysical Contingentism. The first factor is that it presupposes the Non-Standard Conception of metaphysical modality, which is controversial in itself. The second is that it can only be used to establish a very specific version of Metaphysical Contingentism. In light of the problem with the two proposed modifications of the AAA, Metaphysical Contingentists have to rely on the Abbreviated Argument to support their view. This argument can indeed establish the metaphysical contingency both of most logical and conceptual necessities and of the true identities involving rigid designators and essential predications, supporting an exceptionally broad version of the view. On the other hand however, its conclusion is also perfectly consistent with the claim that AAA-conform conditional versions of the corresponding propositions are metaphysically necessary. The

assumption expresses an essential truth about the feature, only trivially differs from Pairing, which characterizes the concept/captures its essence. The two problems with this objection are that, first, the difference between Pairing and PairingAA is actually non-trivial in the context of the Non-Standard Conception, since the antecedent of PairingAA (‘sets exist’) is a Non-Standard contingency, and second, that the divergence matters regarding substantial questions about sets: The claim that there are identical sets which differ regarding their elements is inconsistent with what the concept tells us about sets, but consistent with what the feature tells us about them.

³¹Note that Rosen himself appears to assume that there is no difference regarding the essences of the concept and the feature of being a set when he introduces the AAA-conform version of Pairing by stating that ‘[y]ou can know full well what set membership is supposed to be—*what it is to be a set, what the word “set” means*—without knowing whether any sets exist, and hence without knowing whether Pairing is true.’ (Rosen (2006), p. 18; my emphasis) Given any of the two modifications, what it is to be a set (i.e. the essence of the feature of being a set) and what the word ‘set’ means (i.e. how the concept of being a set as either captured by its essence or its negative characterization in terms of conceptual absurdities represents sets) come apart and, contrary to what Rosen says in the quoted passage, only the latter, but not the former is subject to the AAA.

corresponding version of Metaphysical Contingentism is hence radical regarding its target range of metaphysical claims, but at the same time volatile, in the sense that it in principle allows for the metaphysical necessity of propositions which approximate these claims. So the Contingentist Argument can indeed be used to support a version of Metaphysical Contingentism, but whether this version is really what defenders of the view are looking for is a different question.³²

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