WHY ESSENTIALISM REQUIRES TWO SENSES OF NECESSITY[1]

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Abstract

I set up a dilemma, concerning metaphysical modality *de re*, for the essentialist opponent of a 'two senses' view of necessity. I focus specifically on Frank Jackson's two-dimensional account in his *From Metaphysics to Ethics* (Oxford: Oxford University Press, 1998). I set out the background to Jackson's conception of conceptual analysis and his rejection of a two senses view. I proceed to outline two purportedly objective (as opposed to epistemic) differences between metaphysical and logical necessity. I conclude that since one of these differences must hold and since each requires the adoption of a two senses view of necessity, essentialism is not consistent with the rejection of a two senses view.

I. Terminological Preliminaries

The essentialist holds that some but not all of a concrete object's properties are had necessarily and that necessary properties include properties that are, unlike the property

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of being such that logical and mathematical truths hold, *non-trivially* necessary. It is a necessary condition on a property's being essential to an object that it is had *of necessity*. In the case of concrete objects, some such properties are discoverable by partly empirical means. The essentialist holds that there are *a posteriori* necessities with realist truth conditions.

A *two senses view* of modality claims that metaphysical necessity is a different notion from logical necessity and that we must recognise this distinction if we are to make sense of attributions of necessity *de re*.

The objective modalities are those that are unrestricted by ignorance and belief. Calling a modal notion 'objective' in this sense settles little about matters semantic and still less about matters metaphysical. A 'one sense', account of necessity has it that one notion of objective necessity can account for all objective necessities. Jackson (1998) adopts a one sense view. I will contend, using Jackson (1998) as a foil, that essentialism is not compatible with a one sense view of objective necessity. First, let us examine the background to Jackson's view.

II. *Jackson on Conceptual Analysis and the* A Priori

Jackson (1998, pp. 46-52) distinguishes between the A- and C-extensions and intensions of terms (and the A- and C-truth conditions of sentences). The A-extension of a term is its referent in any world w, on the supposition, from the point of view of w, that w is the actual world. For inhabitants of Twin Earth, where Twin Earth is an occupant of a merely possible world, rather than a planet distant from Earth, the A-extension of 'water' is twater (i.e., the non-H_2O stuff that is picked out by 'water' at Twin Earth). For earthlings, the A-extension of 'water' is water. A-extension is independent of considerations as to which world is in fact actual. C-extension lacks such independence. The C-extension of a term in a world w is its referent in w given whatever world is the actual world (w^*). The C-extension of 'water' in

non-actual worlds (as in w^*) is water: such worlds exhibit counterfactual stability in respect of the actual world. Whether or not H_2O exists on Twin Earth, the Twin Earth C-extension of 'water' is water. In the actual world, any term's A- and C-extensions are identical. The A-intension of a term T 'is the function assigning to each world the A-extension of T in that world'; its C-intension 'is the function of assigning to each world the C-extension of T in that world' (1998, p. 48). This account incorporates the Kripkean point that, when making counterfactual suppositions, we are constrained by the identities of objects in the actual world. If the extension of 'water' in w^* is H_2O then any supposition which entails that water is not H_2O is not a counterfactual supposition *about water*.

Jackson (1998, pp. 49-51) points out that there are frequent epistemic differences in respect of the A- and C-aspects of terms. Although Jackson does not and perhaps would not put it this way, one way of drawing the abstract/concrete distinction is useful in helping to explain such epistemic differences. Accordingly, the differences may be held to arise for terms the C-extensions of which are concrete, i.e., spatio-temporal, objects, but not for those the C-extensions of which are abstract objects.[2] The A- and C-extensions of terms for concreta do not coincide in all possible worlds: this is illustrated by the foregoing Twin Earth example. Terms that are not A- and C- co-extensive are 'two-dimensional' (1998, p. 50). Jackson provides 'square' as an example of a term the A- and C-extensions of which 'are the very same things' in any world whatever (1998, p. 49).[3] In our terms, then, this illustrates the general principle that the A- and C-extensions of a term for any given abstract object are the same in all possible worlds. Inspection of the actual world is of no epistemic

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[2] For subtleties within this general approach to the concrete/abstract distinction and further references see Lowe (1998, Chapters 2 and 10).

[3] The distinction between two-dimensional terms and terms such as 'square' reflects Kripke's distinction (1980, 49) between rigid and strongly rigid designators.

relevance to the A- or C-extension of a term for an abstract object: both are known *a priori*. Two-dimensional terms are different. Here, inspection of the actual world is necessary for knowledge of C-extension, but not for knowledge of A-extension. We know the C-extension of 'water' in w^* when we know its A-extension in w^*. We know the C-extension of 'water' in counterfactual worlds only when we know the *nature* or *essence* of its C-extension in w^*. Accordingly, knowledge of the C-*in*tension of a *two-dimensional* term requires knowledge of w^*. Knowledge of a term's A-*in*tension never requires knowledge of w^*. Conceptual analysis is *a priori* in that it is concerned with the A-extensions and A-intensions of terms. It is also concerned with the classification of terms as two-dimensional or not two-dimensional: again, this is an *a priori* matter.

III. Jackson's One Sense Account of Necessity

Jackson (1998, pp. 69-70) thinks that it is mistaken to suppose that essentialism requires a distinction between kinds of necessity:

> it is mistaken to hold that the necessity possessed by 'Water = H_2O' is different from that possessed by 'Water = water', or indeed, '2+2 = 4'. . . . we should insist that water's being H_2O and water's being water are necessary in the very same sense. The difference lies not in the kind of necessity possessed, but rather where the labels 'a priori' and 'a posteriori' suggest it lies: in our epistemic access to the necessity they share. . . . We should not multiply senses of necessity beyond necessity. The phenomena of the necessary a posteriori, and of essential properties, can be explained in terms of one unitary notion of a set of possible worlds. The phenomena do not call for a multiplication of senses of possibility and necessity, and in particular for a distinction among the possible worlds between the metaphysically possible

ones and the conceptually possible ones.

Jackson maintains that although there are epistemic differences between the necessities he mentions, these do not reflect different senses of necessity. It is correct that epistemic difference does not entail non-identity. For any objects *a* and *b*, if *a* has some epistemic feature lacked by *b*, it does not follow that *a* is not identical to *b*, since at least some of the epistemic features of an object are aptly classified as converse-intentional properties (i.e., relational properties conferred upon an object by mind). For our present purpose, notions, such as notions of necessity, need be considered no different from objects in this respect. If a notion of necessity N1 differs from a notion of necessity N2 in some epistemic respect it does not follow that N1 is not one and the same notion as N2. Standard logical necessity and essentialist necessity differ in an important epistemic respect. We may define the notion of a priority such that an item of knowledge has purely *a priori* status if its most fundamental form of justification is extra-empirical. Standard logical necessity, a notion accepted by essentialist metaphysicians and the logical positivists alike, is a purely *a priori* notion: logical necessities are most fundamentally justified via extra-empirical means. Essentialist necessity is not a purely *a priori* notion, since at least some essentialist necessities are most fundamentally justified in part by appeal to empirical facts. That epistemic difference, however, would appear to be neither necessary nor sufficient to illustrate a genuine failure of identity between standard logical necessity and essentialist necessity.[4] We can agree with Jackson that to advocate a 'two-senses' view of necessity on none but epistemic grounds is

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[4] This presumes the anti-Quinean theses that the standard notion of logical necessity is legitimate and non-empty and that there is a defensible and useful distinction between the *a priori* and the *a posteriori*. Work in defence of one or both of these theses includes Wright (1986), McFetridge (1990), Peacocke (1993; 1997) and Hale (1999).

to reason poorly. For non-identity of sense, we require some *logical* difference.

In order to highlight possible objective differences, I will consider cases which the proponent of a two senses view of necessity thinks to be metaphysical but not logical necessities. The two senses theorist believes there is a *distinctively metaphysical* sense of necessity that is not equivalent to logical necessity.

The holding of any one of the following differences is sufficient for a two senses view.

Logical form. Statements involving necessity1 and those involving necessity2 exhibit non-identical modal logical forms, the syntactic roles of their modal terms being irreducibly different.

Asymmetry of entailment. The necessity1 of a statement entails its necessity2, but not vice versa.[5]

Quantificational domain. Necessity1 involves quantification across an unrestricted domain; necessity2 across a restricted domain.

I will focus upon two accounts of metaphysical necessity either of which entails that at least one of these differences holds. On the first account, while sentential modal operators capture *logical* necessity, there are statements of *metaphysical* necessity *de re* that employ irreducibly non-sentential modal terms functioning as predicate or copula modifiers. On the second, such difference in logical form is not envisaged. Rather, when modal qualifiers are construed as sentential operators, differences in entailment relations remain between statements of metaphysical necessity and statements of logical necessity.

The dilemma I draw hinges on the disjunction that metaphysical necessity *de re* is either typically expressible via sentential modal operators or not typically so expressible. This is not

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[5] Cf. McGinn (2000, p. 93) on difference in entailment relations as sufficient for difference in sense.

to suggest that an explication of modal idioms as sentential modal operators and an explication of at least some of them as predicate or copula modifiers exhaust the theoretical options. In view of the facility afforded by possible worlds semantics, it is common to construe modal terms as quantifiers over possible worlds, with sentential modal operators being viewed as derivative rather than primitive. Even on a quantifier treatment of modality, though, it is not denied that alethic modality is typically expressible via sentential modal operators.[6] In the debate between operator treatments and quantifier treatments, the question is not whether alethic modality typically admits of sentential treatment, but whether this is the end or only the beginning of the story.

IV. First Horn: The Logical Form of De Re *Modality*

On the standard view of the distinction between *de re* and *de dicto* modality, it is a matter of syntax and is accounted for in terms of the scope of sentential modal operators.[7]

A modal construction is *de re* if it includes either

(i)   a name within the scope of a modal operator

$\Box \mathrm{F}a$

Necessarily, 9 is an odd number.

or

(ii)   a modal operator within the scope of a quantifier

$(\forall x)(\mathrm{F}x \rightarrow \Box {\sim} \mathrm{G}x)$

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[6] For discussion of statements of possibility that pose problems for sentential accounts of *de dicto* modality, counting in favour of a quantifier treatment, see Melia (2003, Chapter 4).

[7] See Sainsbury (1991, pp. 239-40), Forbes (1985, p. 48) and Hughes and Cresswell (1996, p. 250).

If a thing is a bachelor then, necessarily, it's unmarried.

A modal construction is *de dicto* if it meets neither 1 nor 2:

$$\Box (\forall x)\,(Fx \rightarrow \sim Gx)$$

Necessarily, all bachelors are unmarried.

On this account, *de re* and *de dicto* constructions exhibit different syntactic structures but this is not down to difference in the syntactic roles of the modal operators they employ: in all cases, these function as sentence modifiers. Thus the standard account does not commit to difference in logical form sufficient to justify a two senses view of necessity[8] by the lights of *logical form* criterion of section III.[9]

There are non-standard views which take the distinction to be one of syntax but which hold not only that *de re* modality is irreducible to *de dicto* modality, but that *de re* modality is typically not sentential at all. On such accounts, the further condition of non-identity of syntactic role of the modal terms employed is considered met. David Wiggins (1976; 1980) has been a prominent exponent of a non-standard view on which such difference in syntactic role obtains between modal constructions *de re* and *de dicto*.

According to Wiggins (1980, p. 106), everyday modal locutions include modal idioms that do not function as sentential operators: 'intuitive grammar suggests that "necessarily" and "possibly" can either govern a complete sentence . . . or govern a simple or complex predicate.' Wiggins (1976; 1980) argues that, contrary to the standard account of the *de re*/*de dicto* distinction, the difference between such forms and forms employing 'it is necessary/possible that...' is not to be explicated in terms of the scopes of the sentential

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[8] Cf. Sainsbury (1991, 240).

[9] For details as to why it might be, on a standard account, that not all *de re* formulae are eliminable in favour of *de dicto* formulae, see Forbes (1985, pp. 54-7) and the references there.

modal operators (i.e., the standard boxes and diamonds). Rather, there are distinctively *de re* modal contexts in which modal idioms function non-sententially, modifying predicates and relations. Wiggins (1980, p. 106) claims that the latter usage is familiar under such verbal forms as 'it is possible for x to V', 'it is necessary for x to be F', 'x can V' and 'it is possible for x to be F'.

On a non-standard view of *de re* modality, a statement of logical necessity is (at least typically) expressible via a sentence within the scope of a necessity operator whereas this is not the case for a statement of *de re* modality.[10] The non-standard view offers us a syntactic difference that is far deeper than the standard account. It entails that the *de re/de dicto* distinction cannot properly be described as simply a matter of the scope of sentential operators.[11] From a non-standard point-of-view, distinctively *de re* modal idioms do not admit of paraphrase using sentential modal operators. Not only is the *de re* irreducible to the *de dicto*, the syntactic operations of the modal terms employed are fundamentally different.

If non-standard accounts are right that some *de re* necessities do not admit of expression via sentential modal operators then a one sense account of necessity must be rejected. To see this, let us consider two routes to the claim that, typically, *de re* modal claims do not

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[10] Wiggins (2001, p. 116) aims to rehabilitate sentential modal operators for the expression of (at least some) *de re* modal theses. It is not clear, however, how this is to square with the comment (2001, pp. 111-2) that the modality that governs predicates as opposed to sentences 'lies outside all grades of modal involvement approved by Quine'. The reference is to Quine's 1953 paper, 'Three Grades of Modal Involvement', reproduced as Quine (1966). Standard modalities *de re* and *de dicto* are contained within Quine's second and third grades.

[11] Cf. McGinn (2000, Chapter 5). McGinn also disputes that *de dicto* modality is typically sentential, though I cannot pursue this here.

admit of sentential treatment.

First, attempting to paraphrase a *de re* modal claim sententially will often result in a sentence with a different truth-value. In the context of Wiggins's account of the distinction between *de re* and *de dicto* modal constructions, the distinction between the following forms, explicated by Hacking (1975) is useful:

(I)   It is possible/necessary that p.

(II)   It is possible/necessary for x to V.

In the case of possibility, take the following examples:

(1) It is possible that Tom swims.

(2) It is possible for Tom to swim.

Suppose that, actually, Tom cannot swim: he has never learned to do so and even lacks the ability to learn. Thus, (2) is false. As students of the notion of logical possibility discover early on, this doesn't threaten the truth of (1). A (I)-style possibility claim, then, is not necessarily co-extensive with its 'corresponding' (II)-style claim.

Turning to necessity, consider:

(3) Cicero is necessarily human.

(4) Necessarily, Cicero is human.

(5) Necessarily, 7 is odd.

(6) Necessarily, Cicero exists.

(7) Necessarily, 7 exists.

Wiggins (1976, 301) indicates grounds for holding that (3) and (4) are not co-extensive and that assigning 'only one structure to "Necessarily exists [*a*]"' involves 'counterintuitive results'. Supposing that '*x* is necessarily *V*' is an unproblematic paraphrase of 'It is necessary for *x* to be *V*', what are the grounds for the claim that a (II)-style necessity claim is not necessarily co-extensive with its 'corresponding' (I)-style claim? Here, Wiggins appeals to the ontological platitudes that concrete particulars such as Cicero are taken to exist contingently, whereas numbers are taken to exist (if at all) necessarily. These platitudes underwrite our ordinary judgments that (7) is true and (6) false. If we are to treat all necessity-involving locutions as apt for (I)-style paraphrase, we cannot both treat 'Necessarily' as univocal and preserve our ordinary ascription of falsehood to (6). The appeal to Kripkean weak necessity will not do. The content of (5) is not exhausted by the claim that the number 7 is odd in all worlds in which it exists, and the content of (7) is not exhausted by the claim that the number 7 exists in all worlds in which it exists. Instead, both (5) and (7) involve commitment to the existence of the number 7 in absolutely all possible worlds. (The invocation of weak necessity can work, if at all, only as a means of accounting for the *absence* of univocity, e.g., between 'Necessarily' as it occurs in (4) as against in (7). Even here, we shall soon see that there are problems.)

A couple of considerations weigh against the introduction of the distinction between rigid ('ordinary') and strongly rigid designators here. Firstly, it is not required if the natural language forms (I) and (II) already provide a solely syntactic method of explicating the *de re/de dicto* distinction. Secondly, the explication of rigid and strongly rigid designation itself appeals to the ontological —and, to boot, modal— platitudes on which Wiggins's case rests. The advocate of weak necessity has to decide upon the order, if any, of explanatory priority between the notions of weak necessity and ordinary rigid designation.

Appealing to weak necessity generates another counterintuitive (and indeed, counter-theoretical) result. Accounting for (4) via weak necessity gives us:

(8) Necessarily, if Cicero exists then Cicero is human.

Treating (6) the same way gives us:

(9) Necessarily, if Cicero exists then Cicero exists.

(6) then emerges as not only true, but tautologous. This is surely an unwelcome result.

In fact, the appeal to weak necessity is problematic in the cases of *both* (4) and (6). If *de re* necessity ascriptions are equivalent to weak sentential necessities, then, assuming that we adopt a classical account of conditionals on which false antecedent makes for true conditional, every purely intentional object has every property necessarily. If attributions of necessary existence are necessitated instances of the logical law $p \rightarrow p$, then every object of thought is a necessary existent. Again, these are unwelcome results.[12]

Now for the second route to the claim that *de re* modality is typically non-sentential. A *de re* modal claim (S1) and its purported sentential translation (S2) will typically be such that (i)

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[12] As the anonymous referee reminded me, Lowe (1998, 15) indicates a means, other than the appeal to weak necessity, of reconciling the necessity of 'Water is H_2O' with the contingent existence of water. This is to construe it as meaning 'For any x, x is water if and only if x is H_2O', which will be true in all possible worlds, though only vacuously so in worlds containing no water. Supposing that this works for identity statements, it does not account for other putative essentialist necessities such as (4). Given the difficulties with weak necessity, these remain in the way of reconciling a one-sense account of necessity with an essentialism any thicker than one that counts only identity statements as essentialist necessities *a posteriori*.

one of the pair does not entail the other, and (ii) differences of truth-value will be possible when (S1) and (S2) themselves appear within the scope of a sentential modal operator. Barring the case where the place of x in (II) is taken by p or by any necessary being, (I)-style possibility does not entail (II)-style possibility.

(10) It is possible that Putnam levitates.

(11) It is possible for Putnam to levitate.

Condition (i) is met in that (10) does not entail (11). Condition (ii) is met in the following way. Plug (10) into 'Necessarily…' and (by the lights of the S5 principle that possibility entails necessary possibility) we get a truth. Do the same with (11) and, regardless of the truth-value of (11), we get a falsehood. As a corollary, plug (11) into 'It is contingent that…' and we get a possible truth. Do the same with (10) and we get a necessary falsehood. Such differences in entailment relations establish that we are dealing with logical forms featuring modal terms with irreducibly different syntactic roles: standard principles of sentential modality apply to (10) but not to (11).

In conclusion to this horn of the dilemma for the one sense theorist, when the syntax of metaphysical necessity *de re* is construed as (unlike logical necessity) typically not explicable by appeal to sentential modal operators, metaphysical modality is construed as distinct from logical modality.

V. Second Horn: Logical Strength

In constructing the second horn of my dilemma for the advocate of a one sense account of necessity, I appeal to some work, namely McFetridge (1990) and Hale (1996), in which the option of treating metaphysical necessity *de re* in a non-sentential fashion is not considered. I argue that even when metaphysical necessity *de re* is taken to be expressible by means of a

sentential modal operator a one sense account of necessity must be rejected. When both are treated sententially, asymmetry of entailment obtains between logical and metaphysical necessity. When possible worlds semantics is invoked to provide a quantifier treatment of modal operators, difference of quantificational domain obtains between logical and metaphysical necessity.

Concerning asymmetry of entailment, my claim is that the logical necessity that p entails the metaphysical necessity that p, but not vice versa.

In respect of the objective modalities, McFetridge defends some 'traditional assumptions', one of which is that 'if it is logically necessary that p then it is necessary that p in any other use of the notion of necessity there may be...But...the converse need not be the case' (1990, pp. 136-137). By the lights of this assumption, if it is objectively necessary that p but not logically necessary that p then there is more than one notion of objective necessity.

Kit Fine (1994, pp. 9-10) suggests that metaphysical necessities are truths in virtue of the natures of objects (whether abstract or concrete) and concepts. On such a theory, logical necessities are held to form a subspecies of metaphysical necessities. There is a distinction between the species of necessity since (i) the metaphysical necessity that p does not entail the logical necessity that p unless p is true in virtue of the natures of concepts and/or abstract entities, rather than concrete entities, and (ii) there are *de re* modal truths about concrete entities, some of which owe their truth to the natures of the entities involved, rather than to the natures of concepts and/or abstracta.[13] Fine's account does not pose a threat to my project. My contention is that regardless of whether logical necessity is a species of metaphysical necessity, metaphysical necessity is not a species of logical necessity.

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[13] The contrast here is highlighted by such cases as: 'Necessarily, Socrates is human' and 'Necessarily, either Socrates is human or it is not the case that Socrates is human'. The former is purportedly true in virtue of the nature of Socrates; the latter is a logical truth.

If it is metaphysically necessary that *p* but it is not logically necessary that *p* then there is more than one notion of objective necessity. A difference in entailment relations between metaphysical necessities and logical necessities establishes the non-identity of the notions of necessity involved. Hale (1996, 93) provides a distinction relating to logical strength which can be used as a means of distinguishing between notions of objective necessity. A notion of necessity is *absolute* if when *p* is necessary in that sense there is no sense in which it is possible that *p* is false. If there is some sense of possibility in which *p* is false then the notion of necessity operant upon *p* is *relative*. If necessity1 is absolute and necessity2 relative, then necessity1 and necessity2 are distinct notions of necessity. Hale's distinction does not debar a situation in which there is more than one absolute or more than one relative notion of necessity, but is nonetheless instructive in enabling us to distinguish between notions of necessity which differ in logical strength.

When *de re* necessity is treated as explicable sententially, I claim, it emerges that metaphysical necessity is *logically weaker* than logical necessity. Hale (1996, 98) depicts this as a conclusion the essentialist will want to avoid, partly on the basis of Kripke's claim that theoretical identities are necessary in the strongest sense. Kripke does not give us the benefit of an account of what he means by strength and given his comments that necessity must be interpreted weakly for *de re* necessities that depend for their truth on the existence of contingent beings, I see no reason for the essentialist to balk at the suggestion that logical necessity is logically stronger than metaphysical necessity.[14] A sentential treatment of *de re* necessity, together with some uncontroversial judgements about truth-values for modal claims, has the result that there are metaphysical necessities whose negations are logically possible.

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[14] Cf. Moravcsik (1990, 101-2).

Suppose that (4) above represents the *de re* necessary truth that Cicero is human. To save the contingency of Cicero's existence, essentialists who adopt the standard account of the distinction between *de re* and *de dicto* modality invoke weak necessity, treating (8) as revelatory of the logical form of (4). Weak necessity is, as its name suggests, logically weaker than logical necessity. That is the point of having the notion of weak necessity. Let '$\boxtimes$' be a weak necessity operator, '$\square$' an unrestricted necessity operator, 'E' represent 'exists' and let unbound variables be place-markers for proper names. The following principles obtain, where the 'e' versions are alternative formulations of the original '$\boxtimes$'-employing principles.

(WN1) $\quad \square(\square Fx \rightarrow \boxtimes Fx)$

(WN1e) $\quad \square(\square Fx \rightarrow \square(Ex \rightarrow Fx))$

(WN2) $\quad \sim\square(\textstyle\prod Fx \rightarrow \square Fx)$

(WN2e) $\quad \sim\square(\square(Ex \rightarrow Fx) \rightarrow \square Fx)$

By (WN1), it is unrestrictedly necessary that unrestricted necessity entails weak necessity. By (WN2), it is not unrestrictedly necessary that weak necessity entails unrestricted necessity. When (4) is interpreted as an unrestricted necessity claim it is false. When (4) is interpreted as a weak necessity claim, it is at best necessary in a non-absolute sense. In view of cases such as (4), (WN2) is legitimate. Since unrestricted necessity entails weak necessity and not vice versa, weak necessity is (unsurprisingly!) logically weaker than unrestricted necessity. Essentialists, then, cannot both have their cake of claiming that by 'metaphysical

necessity' they mean necessity in the (logically) strongest sense and eat that cake by claiming that metaphysical necessity is sometimes weak necessity.

In quantificational terms, the *metaphysically* possible worlds are not exhaustive of the possible worlds,[15] since, for at least some metaphysical necessities their falsehood is logically possible. Logical necessities, unlike metaphysical necessities, hold in (unrestrictedly) all possible worlds.

In summary of this horn of the dilemma, given that a purely sentential characterisation of metaphysical necessity is correct, if it is necessary that *p* but it is not logically necessary that *p* then there is more than one notion of objective necessity. A difference in entailment relations between metaphysical necessities and logical necessities establishes the non-identity of the notions of necessity involved. If there is a difference in logical strength between metaphysical and logical necessities then a one sense account of necessity cannot be correct. Since logical but not metaphysical necessity is absolute in Hale's sense such difference does obtain. So, even if *de re* modal truths admit of sententially modal treatment, the one-sense theorist appears to have, at least as things stand, no refuge from the charge that essentialism requires two senses of objective modality.

VI. Summary

Essentialism has it that there are *de re* modal truths about concrete entities. Metaphysical necessity *de re* is expressible either typically non-sententially or typically sententially. If it is represented non-sententially then a one sense account of necessity has to go. If it is represented sententially then a one sense account of necessity has to go. Therefore, the essentialist must reject a one sense account of necessity.

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[15] *Pace* Lowe (1998, Chapter 1).

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