Metaphysical modality, without possible worlds

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1 Introduction

In contemporary philosophy, there are two divergent understandings of metaphysical modality. Their divergence is a source of scepticism about metaphysical modality. It is indeed often unclear which of the two concepts is at stake in a specific discussion, allowing the sceptic the opportunity to attack metaphysical modality from two fronts. In this paper, I analyse these two views of metaphysical modality (the *absolutist* and the *essentialist*) and assess their main motivations and problems. In the light of my analysis of the two views, I also aim to show that *possible worlds* are not helpful in investigating metaphysical modality. At the end of the analysis I assess whether an absolutist or an essentialist is more entitled to use the expression "metaphysical modality", given a general principle governing the choice of philosophical lexicon.

This paper is structured as follows. In §2, I analyse the absolutist view, according to which metaphysical modality is the extreme variety of objective modality. Metaphysical necessity is then equated with *absolute necessity* and a proposition is deemed metaphysically necessary if and only if it is necessary for every variety of objective necessity. I observe that the absolutist conception does not confer any unity to metaphysical modality and is blind to its sources, and this last claim is reinforced in §3 by the analysis of McFetridge's thesis about logical and absolute modality. In §4, I scrutinise the essentialist view of metaphysical modality. According to it, metaphysical necessities are those that are explained or grounded by essences. Thus, the characterising mark of metaphysical necessity would not be its absoluteness, but its source or ground. In §5, with reference to some main theories of possible worlds, I argue that resorting to possible worlds is not helpful in analysing metaphysical necessity. In §6 I draw some conclusions about the preferable usage of phrases such

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as "metaphysical modality" or "metaphysical necessity" in philosophy, and I suggest that essentialism has an edge over absolutism on this terrain.

Some methodological premises (and a personal note) are important and the subject matter of this introduction. First, it is not my purpose to clarify the notion of metaphysical modality by pinpointing uncontroversial examples of metaphysical necessities or metaphysical possibilities. In the course of the analysis, I obviously cite some examples of *prima facie* good candidates for these roles, but it is wrong to expect a clarification of the concept of metaphysical modality to deliver uncontroversial examples. There is no reason to expect any example of metaphysical modal truth to come for free once the concept is clarified, and even less to be *analytic* with respect to the concept of metaphysical modality.

I do not think that metaphysical modality is unique under this viewpoint. Examples do not come for free and are not analytic (and are not usually expected to do or be so) with respect to many other philosophical concepts. The analysis of knowledge in epistemology does not deliver, by itself, any uncontroversial instance of knowledge. The logical or semantic analysis of truth does not deliver, by itself, any uncontroversial truth (with the obvious exception of those truths that are part of the analysis itself, if it is a good analysis). The metaphysical analysis of properties does not deliver, by itself, any uncontroversial example of property. Nonetheless, in any philosophical discussion of knowledge, truth and properties, some examples are set forth. In many cases, they are mere heuristic tools for presenting a certain theory of knowledge, truth or properties. If we discovered (in contrast with a common example in philosophical discussions about truth) that snow is not really white, no aspect of any theory of truth by Alfred Tarski or Saul Kripke would thereby be refuted. The examples are not part of the theories, and even less are they analytic offsprings of the theories.

The case of metaphysical necessity is not different and should not be treated differently. The examples *are not* part of the theories of metaphysical necessity that I investigate. Perplexities and objections about the examples do not immediately or easily translate into perplexities and objections about the theories. I emphasise this point because *any* example of metaphysical modality will likely raise perplexities and objections. To anticipate some examples I will resort to throughout this paper, many readers will likely disagree with the claim that every human being is such that it is metaphysically necessary that he or she is human; or with the claim that it is metaphysically necessary that if a first entity is part of a second entity and this second one is part of a third, then the first is part of the third. Some examples of metaphysical non-necessity are arguably less controversial (for example, nobody doubts that it is *not* metaphysically necessary to abide by the speed limit in the highways).[1] In any case, the vast disagreements about the positive examples of metaphysical necessity do not by themselves force or entitle the readers to reject the characterisations of metaphysical modality that shall be illustrated by these examples.

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[1] Analogously, in epistemology it is not controversial that I do *not* know that 3 is identical to 4 and in the metaphysics of properties it is not controversial that the laptop I am using is *not* a property: also on this terrain the case of metaphysical modality is not different.

⁶⁵ The disagreements about the examples are *mostly* beside the point. *Mostly* (and
⁶⁶ not always), because an ontological concern remains relevant, namely the concern
⁶⁷ that *nothing* at all performs the roles attributed to metaphysical modality by different
⁶⁸ conceptions of it discussed in the paper. However, this is not the topic of this paper. I do
⁶⁹ not address or refute the corresponding kind of global scepticism about the extension
⁷⁰ of metaphysical modality, according to which it may be a legitimate, adequately
⁷¹ characterisable concept, but *nothing falls* under it.

⁷² Another premiss is that some features of metaphysical modality are not contro-
⁷³ versial, and I focus only on the controversial features. The uncontroversial features
⁷⁴ of metaphysical modality are uncontroversial in the literal sense that—as far as I
⁷⁵ know—nobody in the literature contested them; there is widespread consensus that,
⁷⁶ if a modality lack these features, then there is no good reason to label it as "meta-
⁷⁷ physical", no matter which among the various ways of interpreting this qualification
⁷⁸ of metaphysicality is chosen. These uncontroversial features are not sufficient to
⁷⁹ identify metaphysical modality, but put some constraints on its identification. It is
⁸⁰ for example uncontroversial that metaphysical modality is not deontic. In Daniel
⁸¹ Nolan's example (2011, pp. 315–316), I am permitted by law and morality to make
⁸² my table in the form of a square circle, but this is no indication that this action is
⁸³ metaphysically possible. It is also uncontroversial that metaphysical modality is not
⁸⁴ epistemic; it is not a matter of what can or must be the case given what a certain
⁸⁵ subject knows or what is knowable in general.

⁸⁶ Metaphysical modality is uncontroversially *alethic*. This means that both of the
⁸⁷ following principles hold true ($\square_{met}$ and $\lozenge_{met}$ express metaphysical necessity and
⁸⁸ possibility):

⁸⁹ • $\square_{met}\ p \to p$
⁹⁰ • $p \to \lozenge_{met}\ p$

⁹¹ It is also uncontroversial that metaphysical necessities, possibilities or impos-
⁹² sibilities do not depend on markedly local and specific hypotheses. If I block my
⁹³ bedroom door with a heavy wardrobe, burglars *cannot* pass through that doorway; but
⁹⁴ this impossibility is not metaphysical because it depends on various, rather specific
⁹⁵ circumstances (such as my having moved the wardrobe there and the burglar's
⁹⁶ lack of superior physical strength). Metaphysics is expected to be a distinctively
⁹⁷ general discipline, and marked locality or specificity is thus incompatible with
⁹⁸ metaphysicality.

⁹⁹ Soon after the attention is restricted to alethic, not exceedingly local or specific
¹⁰⁰ modalities, the controversies begin, inasmuch as there are other widely discussed
¹⁰¹ varieties of modality, such as nomic and logical modality, which are alethic, and
¹⁰² neither highly local nor specific. Many philosophers expect metaphysical modality
¹⁰³ to collapse with one of these other alethic modalities, while others think that it is
¹⁰⁴ distinct from these other alethic modalities.

¹⁰⁵ On a personal note, it is not by chance that I have chosen this specific topic for an
¹⁰⁶ essay in honour of Massimo Mugnai. Indeed, Massimo, Sergio Bernini, I and several
¹⁰⁷ other friends have discussed about possible worlds, metaphysical modality and many
¹⁰⁸ other related topics during hardly countable, challenging, chaotic and often funny

109 seminars (locally known as *seminari del martedì*) organised by Massimo at the Scuola
110 Normale Superiore in Pisa from 2009 to 2016.[2] For me, these seminars have been
111 invaluable sources of intellectual stimuli, and are still active in my mind as repertories
112 of philosophical ideas and fond memories. During the seminars, Massimo and Sergio
113 were always sceptical of *both* metaphysical necessity *and* possible worlds; in general,
114 their role in the seminars was to be sceptical of any theory under discussion, and in
115 particular, when these theories belonged to metaphysics. In contrast, my usual role
116 was to act as the *defence attorney* for contemporary metaphysics. In this paper, as
117 regards metaphysical modality, I partially play my role, by concluding (in §6) that
118 there are some good reasons to discuss metaphysical modality in philosophy despite
119 many difficulties and ambivalences affecting the concept. Regarding possible worlds,
120 I somewhat begrudgingly concede to Massimo (in §5) that they are not really useful
121 for the specific purpose of understanding what metaphysical modality is.

2 Metaphysical Modality as Absolute Modality

123 According to the absolutist conception, metaphysical modality is absolute modality.
124 This approach has been recently articulated and defended by Timothy Williamson
125 (see in particular Williamson, 2016). The underlying idea is that when modal prob-
126 lems emerge in everyday life or in specific disciplinary contexts, we tend to coun-
127 tenance only some possibilities, due to the specificity of our interests and of the
128 context; correspondingly, we tend to countenance, besides *absolute* necessities, also
129 more specific necessities, which again depend on our interests or on the context.
130 Some of these interests and contexts are quite important; in some cases, we want
131 to ask what can and must happen under the presupposition that reality is governed
132 by the scientific laws that actually govern it. In such a context, we are uninterested
133 in dwelling on the hypothesis that scientific laws are violated, or different. In these
134 cases, we resort to nomic modality.

135 In philosophy we are often more radical and want to prescind from specificities
136 and contexts. This occurs in particular in metaphysics; how often it happens in
137 metaphysics depends on how metaphysics is construed. For example, according
138 to the influential scientistic conception of metaphysics emphatically advocated by
139 Ladyman et al. (2007) (see also the essays in Ross et al., 2015), metaphysics has the
140 exclusive purpose of unifying the scientific image of the world and therefore should
141 not prescind at all from scientific laws. In contrast, when metaphysics is perceived
142 as the investigation of an unconstrained field of possibilities (see Lowe, 2001 for
143 a contemporary manifesto of this traditional view of metaphysics), we tend to be
144 maximally liberal in admitting far-fetched possibilities and maximally careful in
145 selecting necessities that are really absolute.

[2] Among the participants to the *seminari del martedì*, besides Massimo and Sergio, I am, in partic-
ular, grateful to Andrea Borghini, Giulia Felappi, Gabriele Galluzzo, Lorenzo Azzano, Francesca
Poggiolesi, Stefano Di Bella and Andrea Strollo.

146 According to Williamson, metaphysical modality *qua* absolute modality is simply
147 a special case of a broad range of objective (*i.e.*, alethic, non-deontic, non-epistemic)
148 modalities. It is the extreme, *catch-all* case, in the following sense: a proposition is
149 metaphysically possible "if and only if it has at least one sort of objective possibility"
150 Williamson (2016, p. 455), while a proposition is metaphysically necessary if and
151 only if it has every sort of objective necessity.

152 This absolutist conception of metaphysical modality makes scepticism about
153 metaphysical modality collapse into the overall scepticism about objective modality.
154 There is no good reason to be sceptical of *only* metaphysical modality. Given the
155 other notions of objective modality, metaphysical modality is simply their extreme
156 case, definable through a disjunction or a particular quantification in the case of possi-
157 bility and through a conjunction or a universal quantification in the case of necessity.
158 Thus, we may argue for scepticism about modality on an epistemological basis by
159 expressing concerns about whether and how we manage to know if something is
160 possible if it is not actual, but these concerns and the ensuing sceptical challenge
161 are in no way specific to the extreme, catch-all variety of objective modality (*i.e.*,
162 metaphysical modality).

163 Moreover, suppose that we contend that nomic modality (the kind of objective
164 modality that does not allow any possibility in contrast to scientific laws, and for
165 which scientific laws are necessary themselves) is adequately characterised and that
166 there are no more comprehensive set of possibilities and narrower set of necessities.
167 Given the absolutist conception of metaphysical modality, our contention *is not* a
168 form of scepticism towards metaphysical modality. Instead, our contention can be
169 expressed by saying that metaphysical modality *is* nomic modality, and therefore as
170 adequately characterised as nomic modality is. Any further resistance specifically
171 towards metaphysical modality risks being a mere matter of labels, and in partic-
172 ular the upshot of a distaste for the "metaphysical" label; but then, we should not
173 have accepted to use "metaphysical modality" as equivalent to "absolute objective
174 modality", as the absolutist conception suggests. Once we have made this termino-
175 logical choice and claim that nomic modality is absolute objective modality, we are
176 unentitled to be sceptical specifically of metaphysical modality.

177 The same occurs if we think that *logical modality* is absolute/metaphysical
178 modality. Let us suppose that logical modality is adequately characterised, e.g. by
179 claiming that a proposition *p* is logically possible if and only if *p* does not entail any
180 contradiction; and that *p* is logically necessary if and only if ¬*p* entails a contra-
181 diction.[3] Given this supposition, we are not entitled to be sceptical about meta-
182 physical/absolute modality, which ends up being as adequately characterised and
183 as legitimate as logical modality is: the above characterisation, if it is suitable for

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[3] This characterization ends up being circular if *entailment* and/or *contradiction* are in their turn
characterised in terms of logical modality. This circularity is avoided if entailment and contradiction
are differently characterized (for example if entailment is characterised with respect to a specific
logical system and contradictions are characterised syntactically as sentences of the form $p \land \neg p$).
The focus of this paper is on metaphysical modality and for this reason I lay this problem aside in
what follows.

184 logical modality, is suitable for metaphysical/absolute modality too, given that logical
185 modality *is* absolute modality.

186 Thus, the absolutist conception has an edge in the dialectics with the sceptical
187 about metaphysical modality, inasmuch as this scepticism collapses into the scep-
188 ticism about objective modality in general. On the other hand, absolutism does not
189 confer any kind of unity to metaphysical modality. It does not pinpoint any unitary,
190 substantial feature of metaphysical modality and is utterly silent regarding the sources
191 or grounds of metaphysical modality. It passes the buck to all the varieties of objec-
192 tive modality, of which some (*e.g.*, nomic modality) are in turn plagued by their
193 own philosophical problems. In the absence of a substantial common element, the
194 doubt might arise that metaphysical modality is not really unitary and is therefore a
195 disjunctive and gerrymandered concept, perhaps on a par with *being a camel or a*
196 *rhododendron.*

197 We might hope to attain a more unitary and explicative characterisation of meta-
198 physical modality *by reflecting on what absoluteness is*. Generally, absoluteness is the
199 lack of relativity. Bob Hale (most explicitly in Hale, 2012) has proposed to construe
200 metaphysical necessity *qua* absolute necessity as the lack of relativity with respect
201 to counterfactual hypotheses, *i.e.* as *counterfactual inevitability*. What would happen
202 in any case, no matter what counterfactual hypothesis we consider, is metaphysically
203 necessary. We could even define metaphysical necessity through a quantification in
204 sentential position on counterfactual hypotheses, as follows (> is the connective for
205 counterfactual conditionals; let us assume that the values of the quantified variable
206 *q* are propositions):

$$\Box_{met} p \equiv_{def} \forall q(q > p) \qquad \text{(Metaphysical Necessity)}$$

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209 As in all the other characterisations of metaphysical modality, once metaphysical
210 necessity is defined, metaphysical possibility can be easily defined in terms of it, as
211 follows:

$$\Diamond_{met} p \equiv_{def} \neg\Box_{met}\neg p \qquad \text{(Metaphysical Possibility)}$$

213

214 Metaphysical modality *is not* reduced to something else by these definitions. First,
215 counterfactuality is by itself a modal notion—what variety of modality? Since the
216 *definiendum* is metaphysical modality, there are good reasons to expect the modality
217 in the *definiens* to be metaphysical as well. Second, a presupposition of the adequacy
218 of this definition is that, for metaphysically impossible propositions that are values
219 of *q*, the resulting counterfactual conditional is a counterpossible conditional and is,
220 as a consequence, trivially true.[4] This means that the only values of *q* that really
221 matter are the *possible* propositions, but again, the possibilities at stake are plausibly

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[4] In recent years, the claim that every counterpossible conditional is trivially true has been contested
for a variety of reasons. See Berto et al. (2018) for a version of antitrivialism about counterpossibles
and Williamson (2018) for a compelling defense of trivialism. Since the debate is not directly
relevant for the characterisation of metaphysical modality, I simply assume Williamson's trivialism
about counterpossibles in this paper.

metaphysical/absolute possibilities, so that the limits of the counterfactual scenarios in terms of which counterfactual inevitability is characterised end up presupposing a characterisation of metaphysical/absolute possibility.

This kind of irreducibility of metaphysical modality is perhaps unsurprising, given that it is generally very difficult to reduce modal notions to non-modal ones. However, irreducibility here provides evidence that this definition in terms of counterfactual inevitability will unlikely deliver the kind of unity of metaphysical modality that we have been looking for. The domain of the values of q is allowed to be highly heterogeneous, and the resulting domain of metaphysical necessities and possibilities is allowed to be no less heterogeneous.

To recap, metaphysical modality as *absolute* objective modality is easily characterisable in terms of other varieties of objective modality. Given these other varieties of objective modality, there is no specific reason to be sceptical *only* of metaphysical/absolute modality. This simple characterisation of metaphysical modality does not establish whether metaphysical modality collapses into a specifically and unitedly characterised objective modality, such as nomic or logical modality. Metaphysical/absolute modality can also be analysed by focusing on its non-relativity, which can be construed as counterfactual inevitability. This kind of superficial unification is compatible with a high degree of internal variety among different instances of metaphysical/absolute modality.

3 McFetridge's Thesis and the Sources of Modality

It is interesting to investigate more in depth how and why the absolutist conception of metaphysical modality fails to confer any unity to it and is in particular blind to the various sources of absolute/metaphysical modality. The blindness—a pivotal difference with respect to the essentialist conception, as we are going to see in §4—is already rather evident in the Williamsonian characterisation of metaphysical necessity: p is metaphysically necessary if and only if p is necessary for every variety of objective necessity. The varieties of objective necessity are allowed to be highly heterogeneous (for example, nomic modality is quite different from logical modality) and, thus, no real, unitary *source* of metaphysical modality is identified.

This blindness with respect to the sources of modality is a potential source of confusion also as regards the other forms of objective modalities. Thus, let us suppose that you think that nomic modality is absolute/metaphysical modality and that, as a consequence, scientific laws are absolutely/metaphysically necessary. Given the above characterization of metaphysical necessity, it follows that scientific laws are necessary for any variety of objective modality. Thus, scientific laws are, for example, logically necessary. This is in a sense to be expected: you contend that scientific laws are absolutely/metaphysically necessary and so you coherently deny that any other kind of objective modality disclose further possibilities; if another kind of objective modality were to disclose further possibilities, nomic modality would not be absolute/metaphysical.

263   Nonetheless, any pressure to thereby, implausibly, conclude that the negation of
264 every scientific law entails a contradiction—in coherence with the characterisation
265 of logical necessity we assumed in §2—should be resisted. The negation of—say—
266 Coulomb's Law (according to which the magnitude of the electrostatic force of
267 attraction or repulsion between two point charges is directly proportional to the
268 product of the magnitudes of charges and inversely proportional to the square of
269 the distance between them) does not entail any contradiction. This simply means
270 that the source of this instance of metaphysical modality is not in logic: it is in
271 science. Coulomb's Law, if it is taken to be absolutely/metaphysically necessary,
272 is necessary for any variant of objective necessity, and so is both nomically and
273 logically necessary; but this claim does not pinpoint in any way the source of its
274 necessity. This source is connected with its being nomically necessary and not with
275 its being logically necessary, but the absolutist conception of metaphysical necessity
276 does not identify in any way the source of its necessity.

277   Analogously, suppose that you endorse the claim that logical necessity is abso-
278 lute necessity. It is logically necessary that if Cristiano Ronaldo (CR henceforth) is
279 a football player, then CR is a football player; indeed, the negation of this logical
280 necessity entails a contradiction, namely that CR is a football player and CR is not
281 a football player. Thus, it is also absolutely/metaphysically necessary that if CR is
282 a football player, then CR is a football player. Given the Williamsonian understanding
283 of absolute/metaphysical modality, it follows that it is also *nomically* necessary that if
284 CR is a football player, then CR is a football player. This is in a sense to be expected:
285 you contend that logical necessity is absolute/metaphysical necessity, and so you
286 coherently deny that any other kind of objective modality discloses further possi-
287 bilities; if another kind of objective modality were to disclose further possibilities,
288 logical modality would not be absolute/metaphysical. However, this should not lead
289 us astray about the source of the instance of metaphysical necessity at stake: it is
290 not a law in any natural science that if CR is a football player, then CR is a football
291 player. The source of this instance of metaphysical modality lies in logic, and the
292 absolutist conception of metaphysical modality is blind to this source.

293   It is also interesting to make explicit the significance of the so-called McFetridge's
294 Thesis (presented in McFetridge, 1990 and later systematised in Hale, 1996) with
295 respect to this limit of absolutism. According to McFetridge's Thesis, the kind of
296 logical necessity that characterises valid inferences (*i.e.*, the sense in which the
297 premises of a valid inference necessitate its conclusion) is such that no other kind of
298 necessity is stronger: if McFetridge's Thesis is accepted, logical necessity is absolute,
299 metaphysical necessity. More precisely, McFetridge's thesis states that, if the condi-
300 tional corresponding to a valid inference (*i.e.*, a conditional whose antecedent is the
301 conjunction of the premises of the inference and whose consequent is the conclusion
302 of the inference) is logically necessary, then there is no other, wider sense where it
303 is possible that its antecedent is true and the consequent is false.

304   McFetridge's Thesis can be proven from the following, seemingly weak and
305 reasonable assumptions ($\square_{log}$ is an operator of logical necessity and $\lozenge$ is an arbitrary
306 operator of possibility):

307 • (A1) If $\Box_{log}(p \to q)$, then $\Box_{log}((p \land r) \to q)$; and if $\Box_{log}(p \to q)$, then
308    $\Box_{log}((r \land p) \to q)$
309 • (A2) $\Box_{log}(p \to p)$
310 • (A3) If $\Box_{log}(p \to q)$ and $\Box_{log}(p \to r)$, then $\Box_{log}(p \to (q \land r))$
311 • (A4) If $\Diamond p$ and $\Box_{log}(p \to q)$, then $\Diamond q$
312 • (A5) $\neg\Diamond(p \land \neg p)$

313   By keeping in mind that, when $\Box_{log}$ is prefixed to a conditional, the conditional
314 corresponds to a valid inference, let us briefly see why (A1–A5) are weak and reason-
315 able. (A1) expresses the principle that a valid inference cannot be disrupted by
316 strengthening its premiss; (A1) is scarcely controversial, except in the context of
317 relevant logic.[5] (A2) expresses the reflexivity of valid inference. (A3) corresponds to
318 the contention that if two conclusions can be validly inferred from certain premisses,
319 their conjunction can also be validly inferred from those premisses. (A4) claims that
320 any kind of objective possibility is transmitted through valid inferences (*i.e.*, if the
321 premisses of a valid inference are possible, its conclusion is possible too). (A5) states
322 that for no reasonable candidate to the role of objective possibility, is a contradiction
323 possible.

324   Given these premises, it is possible to run the following argument, which proceeds
325 from the assumption that a conditional is logically necessary to the conclusion that
326 it is not possible (for any objective sense of possibility) that the antecedent is true
327 and the conclusion is false:

328 1. $\Box_{log}(p \to q)$ (Assumption)
329 2. $\Diamond(p \land \neg q)$ (Assumption for *Reductio*)
330 3. $\Box_{log}((p \land \neg q) \to q)$ (1., A1)
331 4. $\Box_{log}(\neg q \to \neg q)$ (A2)
332 5. $\Box_{log}((p \land \neg q) \to \neg q)$ (4., A1)
333 6. $\Box_{log}((p \land \neg q) \to (q \land \neg q))$ (3., 5., A3)
334 7. $\Diamond(q \land \neg q)$ (2., 6., A4)
335 8. $\neg\Diamond(q \land \neg q)$ (A5)
336 9. $\neg\Diamond(p \land \neg q)$ (2., 7., 8., *Reductio*)

337   McFetridge's Thesis is a rather solid result, and the attempts to block the above
338 argument go through relatively narrow paths, that are in need of an independent
339 motivation: the adoption of relevant logic, thereby rejecting (A1); the adoption of
340 a non-classical logic in which the *reductio* is not valid; or perhaps the rejection of
341 (A4). This is not the topic of this paper: we are neither defending nor attacking the
342 view that logical modality is absolute modality and the arguments in its support, but
343 only discussing the proper understanding of this view when it is conjoined with an
344 absolutist, Williamsonian conception of metaphysical modality.

345   What does McFetridge's Thesis show, if it is accepted, as far as absolute, meta-
346 physical modality is concerned? McFetridge's Thesis shows that no modality is

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[5] (A1) has two parts, inasmuch as it does not matter whether the additional premiss is postpended
(first part) or prepended (second part) in the conjunction with the original premisses (the conjunction
is the antecedent of the conditional).

347 more absolute than logical modality in the following sense: no *new* possibility that
348 is foreclosed by logical necessity is then disclosed by another kind of objective
349 modality; there is no more relaxed sense of possibility in which logical impossibil-
350 ities are possible. Every instance of logical necessity is thus absolutely necessary.
351 Let us now bring to the table the absolutist conception of metaphysical modality:
352 absolute/metaphysical necessity is the conjunction of every objective necessity,
353 *including logical necessity*; thus, every instance of absolute/metaphysical neces-
354 sity is an instance of logical necessity. This means that, given McFetridge's Thesis
355 and the absolutist conception, logical necessity and absolute/metaphysical neces-
356 sity end up extensionally coinciding. As we have seen in §2, this does not translate
357 into scepticism with respect to absolute/metaphysical modality. In contrast, we end
358 up identifying absolute/metaphysical modality with an arguably rather well-defined
359 modality (logical modality).

360 However, McFetridge's Thesis does not show that the source of every metaphys-
361 ical necessity is logic; it does not show that any negation of a metaphysical necessity
362 entails a contradiction. Every metaphysical necessity is logically necessary (in the
363 sense that no other modality can disclose further possibilities), but—as it happens
364 in general, when an absolutist conception of metaphysical modality is at play—no
365 information is given about the source of various instances of metaphysical modali-
366 ties: for some of them the source is arguably logic (as is the case for the necessity
367 that if CR is a football player, then CR is a football player), but in other cases, as far
368 as McFetridge's Thesis is concerned, the source could lie elsewhere.

369 The transitivity of parthood may be an absolute/metaphysical necessity even if no
370 contradiction follows from the hypothesis that three entities are such that the first is
371 part of the second, the second is part of the third, but the first is not part of the third. It
372 may be absolutely/metaphysically impossible that a certain sound lacks any volume,
373 even if no contradiction follows from the hypothesis of a volumeless sound, and it
374 may be absolutely/metaphysically impossible that a human being becomes a cabbage
375 even if no contradiction follows from this hypothesis. The absolutist conception is
376 blind to the sources of metaphysical modality; and this blindness persists even when
377 the absolutist conception is conjoined with the claim that metaphysical modality
378 coincides with a specific kind of objective modality (such as logical modality, in the
379 case of McFetridge's Thesis).

4 Metaphysical Modality as Essential Modality

381 I cannot go across the Tevere River in Rome *by swimming*. This impossibility is highly
382 contingent; it depends on the fact that I am a poor swimmer and that the Tevere is
383 a relatively large river, not a narrow and slow stream. It is definitely wrong to deem
384 this impossibility *metaphysical*, precisely because it depends on circumstances and
385 features of reality that are in turn contingent. Moreover, I cannot go from Lisbon
386 through the Atlantic Ocean and reach New York in this way. This latter impossibility
387 is *prima facie* rather solid and quite independent of my physical peculiarities. It is

388 difficult to establish whether or not the impossibility is absolute. Perhaps the fact
389 that I lack Herculean capacities, which would enable me to swim for 5,419 km (the
390 distance from Lisbon to New York) *is not* in any sense contingent because it is rooted
391 in what I am—in the fact that I am a human being and that human beings' strength
392 and dimensions *cannot* in any case reach the required high levels. Moreover, the
393 ocean's wideness and dangerousness are perhaps not contingent; there surely can be
394 narrow and quiet watery basins, but arguably an *ocean* cannot be such.

395 If you think that the impossibility that I would cross the ocean by swimming is
396 absolute, you may want to root it in my essence and/or in that of the ocean. You are
397 not forced to do so. I will not discuss any argument for the specific claims that human
398 beings and oceans have essences and that these essences are precisely connected with
399 the features at stake in the above example.

400 The understanding of essences and of their role in grounding metaphysical modal-
401 ities could be more minimal; for example, you can claim that it is impossible for me
402 to be two or more entities, instead of merely one, and root this impossibility in
403 my essence (a similar impossibility would plausibly hold for any individual and be
404 rooted in its essence). A minimal example such as this about numerical oneness is
405 also enough to appreciate the ensuing characterisation of metaphysical modality as
406 rooted in essences. What is metaphysically necessary is rooted in *some* essences.

407 The literature about this understanding of metaphysical necessity (see, e.g., Fine,
408 1994; Hale, 1996) often discusses the problem of whether the grounds should be
409 a single essence, various essences or the totality of the essences of all the entities.
410 This debate is important if you are after a characterisation of *essential modality*,
411 inasmuch as essential modality is plausibly specific to a certain entity or entities.
412 What is essential for me (such as being human or lacking Herculean capacities) is
413 not essential for the ocean; for this reason, in the attempts to formalise essential
414 modality (see in particular Fine, 1995), the modal operators usually have an index
415 for an entity (and these indices can be chained, thereby obtaining indices for multiple
416 entities), by whose essence a certain instance of essential necessity is grounded.

417 However, metaphysical necessity—even in this second understanding of it,
418 according to which it is grounded by essences—is not analogously *perspectival*. It
419 matters that metaphysical necessity has a certain *general source*, namely the essences.
420 However, it does not matter what entity or how many entities are the specific sources
421 of an instance of metaphysical necessity. Some metaphysical necessities (such as:
422 the fact that I am not identical to Jason Momoa) can be collectively grounded by
423 more than one essence (such as: my essence and Jason Momoa's). In the technical
424 terms of contemporary theories of metaphysical grounding, both essences *partially
425 ground* this metaphysical necessity; neither of them individually, *totally grounds* it,
426 but they collectively do so (see, *e.g.*, Fine, 2012; Raven, 2015; Rosen, 2010).

427 How general can an account of metaphysical modality as grounded by essences
428 be? It may be suspected that such an account can only cover *de re* modalities and
429 is constitutively unfit for *de dicto* modalities. The account *prima facie* seems more
430 apt to capture what every human being possibly and necessarily does or is than what
431 possibly and necessarily every human being does or is. It can aspire to capture the

₄₃₂ fact that every human being is necessarily human, but not the fact that necessarily
₄₃₃ every vixen is female and not even that necessarily every human being is human.

₄₃₄   The gist of the problem is clear in these last two instances of typically *de dicto*
₄₃₅ modal claims—the essences of vixens and humans do not seem to play any role in
₄₃₆ these modal claims. In the former case, the fact that every vixen is female is the
₄₃₇ outcome of the definition of the word "vixen" or of the corresponding concept, and
₄₃₈ it is by virtue of this definition that this fact necessarily holds. In the latter case, it is
₄₃₉ a logical truth that every human being is human. Logical truths are typically formal
₄₄₀ or topic neutral. Thus, no specificity of human beings or of the meaning of "human"
₄₄₁ plays a role in this necessity; logic here is the only source of necessity.

₄₄₂   The cases of the vixen and of the *de dicto* claim that necessarily every human being
₄₄₃ is human might seem extraneous to metaphysics. They involve a kind of necessity
₄₄₄ that abides by the minimal, uncontroversial constraints discussed in §1 (necessity is
₄₄₅ here neither deontic nor epistemic, but alethic, and is not the outcome of markedly
₄₄₆ local or specific circumstances). Nonetheless, they do not belong to metaphysics,
₄₄₇ and this is especially clear in the light of an *essentialist* conception of metaphysics.
₄₄₈ The essentialist conception of metaphysical modality as grounded by essences corre-
₄₄₉ sponds to the traditional view of metaphysics as the study of essences. Metaphysics
₄₅₀ would be the general investigation of the essences, natures or identities (these three
₄₅₁ labels tend to be interchangeable in the context of contemporary essentialism) of enti-
₄₅₂ ties. It might be said that conceptual/analytic truths (*e.g.*, about vixens) and logical
₄₅₃ truths are necessary, perhaps absolutely so, but are not studied by metaphysics. We
₄₅₄ are delving into an understanding of metaphysical modality (the essentialist concep-
₄₅₅ tion) that (in contrast to the absolutist conception, as discussed in §2) does not equate
₄₅₆ metaphysical modality with absolute modality. Thus, it is coherent and to be expected
₄₅₇ that conceptual/analytic truths and logical truths are not classified as metaphysical
₄₅₈ necessities by the essentialist conception, because they do not belong to metaphysics,
₄₅₉ and thus *are not metaphysical*.

₄₆₀   While some instances of *de dicto* modality (*e.g.*, those above) plausibly do not
₄₆₁ belong to metaphysics as a discipline, some other instances do. Among the cited
₄₆₂ examples, the transitivity of parthood is a good candidate for the role of a necessary
₄₆₃ metaphysical principle, and its necessity is clearly *de dicto*, as the syntactic form of
₄₆₄ the following formulation shows (*P* expresses parthood):

₄₆₆
$$\Box(\forall x \forall y \forall z (x \; P \; y \land y \; P \; z \to x \; P \; z))$$

₄₆₇ The case of the transitivity of parthood is not special at all. When we say that
₄₆₈ grounding is an asymmetrical relation and that mental properties supervene on phys-
₄₆₉ ical properties (and in general when we set forth supervenience claims), we use *de*
₄₇₀ *dicto* modalities within metaphysics. If metaphysical modality needs to mirror the
₄₇₁ subject matter of metaphysics, then the claim that every *de dicto* modality is correctly
₄₇₂ classified as non-metaphysical because it does not belong to the subject matter of
₄₇₃ metaphysics is simply false, and the restriction of metaphysical modalities to *de re*
₄₇₄ modalities is an inadvisable step.

Thus, some *de dicto* modal truths patently belong to the subject matter of metaphysics, while other *de dicto* modal truths—such as those that are in some way conceptual/analytic or logical—*prima facie* might be deemed *absolute but not metaphysical*, because they do not belong to the subject matter of metaphysics. Overall, the essentialist conception of metaphysical modality is confronted with a *prima facie* mismatch between the domain of metaphysical modal truths and the domain of modal truths that are plausibly grounded by essences. Moreover, it seems that the domain of modalities that are metaphysical but not *prima facie* grounded by essences (*e.g.*, the necessary transitivity of parthood) is in continuity—within the domain of *de dicto* modalities—with that of other modal truths that do not belong to metaphysics at all (*e.g.*, the necessity that every vixen is female).

In front of this *prima facie* mismatch, the defender of the essentialist account of metaphysical necessity can proceed in two broad ways: either by *widening the domain of essences and essence bearers* or by *narrowing the domain of application of its essentialist account of metaphysical necessity*. In the concluding section (§6) I tentatively explore the latter approach. In contrast, the former approach prevails in the contemporary essentialist literature (see both Fine, 1994; Hale, 2012). Let us then find out what this former approach of widening the domain of essences and essence bearers contends and what main difficulties it encounters.

Not even the staunchest supporter of essentialism thinks that there are some *pieces of concrete reality* whose essences account for the necessity of "every vixen is a female fox" or "every human being is human". In particular, everybody agrees that the essences of vixens and humans play no role in these necessities. Fine and Hale (here, I disregard many matters of detail about which they disagree) think that there are *other*, non-concrete entities whose essences explain or ground these metaphysical necessities.

In particular, they are happy to concede that there is nothing wrong in saying that the necessity about a vixen is analytic or conceptual (inasmuch as it relates to the definition of the concept *vixen* or of the corresponding predicate "vixen"); and that the necessity about human beings is logical (inasmuch as it is logically true).

However, in both cases, Fine and Hale think that the essences of some entities are involved and that it is thus correct to classify analytic or conceptual necessities and logical necessities as metaphysical necessities, given the understanding of metaphysical modality as grounded by essences. These are the essences of *meanings* or of *concepts* in the case of analytic or conceptual necessities and the essences of *logical objects* in the case of logical necessities.

This approach is ontologically burdensome. Concepts and meanings are problematic entities, whose characterisation is in turn the subject of many controversies. It is also doubtful, for reasons stemming from Quine (1951)'s notorious criticism of the synthetic/analytic distinction (see Rey, 2018 for an introduction to the current debate), that there is a domain of necessary truths that are grounded by meanings or concepts. Logical objects are even more troublesome, and less often discussed in recent philosophy. For this reason it is useful to dwell on logical objects.

Fine's and Hale's ideas about logical objects and their essences are in direct contrast with Wittgenstein's notorious thesis in the *Tractatus Logico-Philosophicus*

⁵²⁰ that there are no logical objects (sect. 4.442); and in tension with the widely accepted
⁵²¹ contention that only *non-logical* terms stand for components of reality, while logical
⁵²² terms only express the ways in which the conditions of satisfaction or truth of complex
⁵²³ formulas or sentences depend on those of the simpler formulas or sentences within
⁵²⁴ them. In contrast, the idea that essentialists aim to defend here is that the various
⁵²⁵ logical terms (connectives and quantifiers in particular) in some way correspond to
⁵²⁶ entities. For example, conjunction as a logical connective would in some way corre-
⁵²⁷ spond to conjunction$_{obj}$, a logical object. The essence of conjunction$_{obj}$ would ground
⁵²⁸ the logical necessities involving conjunction, either totally or partially (partially if
⁵²⁹ other logical objects are involved). Thus, consider the kind of necessity that is usually
⁵³⁰ attributed to a *valid* logical inference, such as the following:

⁵³²
$$\frac{p \wedge q}{p}$$

⁵³³ The metalogical claim that *p* follows from $p \wedge q$ is metaphysically necessary (logical
⁵³⁴ necessity being a subspecies of metaphysical necessity), and would be fully grounded
⁵³⁵ by the essence of conjunction$_{obj}$. In the case of non-metalogical, logical truths in the
⁵³⁶ object language, the essences of various logical objects would collectively ground
⁵³⁷ their metaphysical necessity. This would also be the case for "every human being
⁵³⁸ is human", whose necessity would be presumably grounded by the essences of
⁵³⁹ something like universalquantifier$_{obj}$ and if-then$_{obj}$ (the standard formalisation in
⁵⁴⁰ first-order logic of "every human being is human" being: $\forall x(Hx \rightarrow Hx)$).

⁵⁴¹   Many problems affect this approach, which has never been developed in any detail,
⁵⁴² despite being advocated by some essentialists as a way to obtain a unitary account
⁵⁴³ of metaphysical modality. Here are two potential concerns, which have not been so
⁵⁴⁴ far adequately addressed:

⁵⁴⁵ 1. The standard semantic analysis of logical language does not countenance these
⁵⁴⁶   logical objects as referents (or as any other kind of semantic meaning) of logical
⁵⁴⁷   expressions. Logical expressions are usually not expected to refer to anything
⁵⁴⁸   at all. Their meanings are usually characterised by a clause in the recursive
⁵⁴⁹   conditions of satisfaction or truth for a certain language. Thus, the essentialist
⁵⁵⁰   either ends up relying on logical objects that lack any role in semantics; or is
⁵⁵¹   committed to adopt a non-standard semantic analysis of logical language, in
⁵⁵²   which logical objects play a role.[6]

⁵⁵³ 2. It is unclear to which degree of granularity we should distinguish different meta-
⁵⁵⁴   physical necessities, which are grounded by the essences of different logical
⁵⁵⁵   objects. As is customary in the theory of grounding, the distinctions to be drawn

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[6] In the categorial grammars for natural languages *à la* Cresswell and Montague, connectives belong
to categories and can be expected to semantically correspond to certain entities (usually functions).
Also the attempt of Quine (1960) to devise a logical language in which connectives are systematically
replaced by predicates might be revitalized for this purpose. The works in categorial grammar are
usually scarcely explicit about the ontological import of categories, and to put Quine's proposal at
the service of essentialism might seem sacrilegious. Thus, at least as far as I know, the attribution
of essences to the objects at stake has never been investigated in the literature.

556 have to be *hyperintensional*; otherwise all logical truths risk collapsing into a
557 single necessity to be grounded. It is difficult to know where to stop when
558 drawing hyperintensional distinctions. Should we take the standard formalisa-
559 tion of a certain truth as a reliable guide in identifying the logical objects whose
560 essences would ground its metaphysical necessity?

561 These unsolved problems are sufficient to motivate scepticism about this ambitious
562 version of essentialism, which seeks grounding essences also for the most recalcitrant
563 instances of absolute modality. In §6, I shall again turn to the more modest variant
564 of the essentialist approach to metaphysical modality, which narrows the domain of
565 application of essentialism and is content with accounting only for *some* instances
566 of absolute modality. It is now time to ask whether some progress in the analysis
567 of metaphysical modality can be made by means of the most successful tool for the
568 semantic analysis of *modal logic*, namely possible worlds.

5 Possible Worlds and Metaphysical Modality

570 As discussed in §2, the absolutist conception of metaphysical modality corresponds to
571 the idea that in metaphysics we are not interested in any restricted or local truth. Inas-
572 much as we are metaphysicians, we are—so to speak—maximally liberal in consid-
573 ering remote, unlikely hypotheses. In the attempt to make the absolutist conception
574 explicit and precise, this lack of restriction can be construed in various ways, and
575 we have considered one: Hale's analysis of absoluteness in terms of counterfactual
576 inevitability. Given the analysis of modal notions in terms of possible worlds, there
577 is another obvious way of construing absoluteness. We have at our disposal the set
578 of all possible worlds (the *pluriverse*). We can consider either a proper subset of it
579 or the whole set; if we consider the former, then we exclude some scenarios and are
580 not as liberal as metaphysicians should be.

581 Thus, if I say that I cannot cross the Tevere River by swimming, I disregard many
582 possible worlds at which my physical strength is greater than at the actual world,
583 or the river's width or impetus is less. The restrictions usually pertain to minimum
584 levels of similarity to the actual world under a certain respect, where the respect and
585 the metrics of similarity are allowed to vary from case to case.

586 What does it mean in this context to *consider* all possible worlds (if the modality
587 is metaphysical) and to *consider* only some of them (if it is not metaphysical)? It
588 means—respectively—not to restrict and to restrict some *quantifiers*. These quan-
589 tifiers can belong either to the metalanguage or to the object language, according
590 to the specific variant of the theory of possible worlds that we resort to. In the
591 standard, Kripkean semantics for modal languages (see, *e.g.*, Kripke, 1963), the
592 truth conditions for modal sentences in the metalanguage include quantifiers over
593 possible worlds (regardless of whether these sentences are *de re* or *de dicto*). In
594 David Lewis' counterpart theory (Lewis, 1968), the quantifiers at stake are in the
595 object language and *replace* modal operators. If the modality is *de dicto*, then there

are quantifiers over possible worlds, which can be either unrestricted or restricted. If the modality is *de re*, then there are quantifiers over possible individuals, which are parts of possible worlds (the so-called counterparts of the actual individual to which the *de re* modality is attributed). In this case as well, the quantification over counterparts can be either unrestricted or restricted. In all these cases, the modality at stake would be metaphysical if and only if the quantifiers are unrestricted.

To assess the possible worlds' contribution to the analysis of metaphysical modality, it is instructive to compare the analysis of absolute/metaphysical modality in terms of possible worlds, on the one hand, with its analysis in terms of counterfactual inevitability (as discussed at the end of §2), on the other hand. For the purposes of this comparison, let us adopt the standard Lewis-Stalnaker semantic analysis of counterfactual conditionals as variably strict (Lewis, 1973; Stalnaker, 1968) in a simplified version that is sufficient here: a counterfactual conditional $p > q$ is true if and only if the consequent q is true at all the worlds at which the antecedent p is true which are similar at least to a certain degree and under a certain respect of similarity to the actual world. The full determination of the truth conditions of a counterfactual conditional therefore requires the specification of a minimum degree and of a respect of similarity. The expectation is that the context in which a counterfactual conditional is uttered can help determine the minimum degree and the respect.

According to the analysis of metaphysical necessity as counterfactual inevitability (as discussed at the end of §2), p is metaphysically necessary if and only if, for *every* q, $q > p$ is true. For each of the counterfactual conditionals obtained by replacing the variable q with a certain sentence, the Lewis-Stalnaker analysis can be applied by specifying a minimum degree and a respect of similarity or a context that in turn determines a minimum degree and a respect of similarity. In the analysis of metaphysical necessity, we have a universal quantification in sentential position on the antecedents of the counterfactuals, and thus no limits on the variation of the antecedents. On the other hand, the context is provided once and for all for the single claim of necessity whose absoluteness/metaphysicality has to be assessed. This means that the minimum degree and the respect of similarity are also determined once and for all by the context of the claim of necessity (they do not vary for the different values of the variable q). The context is presumably *metaphysics itself* (or more locally, a paper, a book, a seminar or a conversation on metaphysics), such that we are liberal in admitting similarities and we strive to be neutral as regards the respect of similarity, by privileging the sharing of some properties over the sharing of others only if these properties are privileged from a metaphysical viewpoint (*e.g.*, inasmuch as they are natural or fundamental properties).

Given this interpretation of the counterfactuals at stake, at the end of the day, are counterfactual inevitability and truth at all possible worlds equivalent to each other? Clearly, truth at all possible worlds entails counterfactual inevitability: if p is true at all possible worlds, then, given any q, p is true at all the worlds at which q is true, no matter how similar and under which respect these worlds are to the actual world. In the opposite direction, there are good reasons to *deny* that counterfactual inevitability entails truth at all possible worlds; that is, to deny that if for every q p is true at all the possible worlds at which q is true and which are similar to the actual world to a

641 liberal degree under a metaphysically neutral respect, then *p* is true at every possible
642 world.

643 The temptation might arise to argue in favour of this latter entailment from coun-
644 terfactual inevitability to truth at all possible worlds based on the remark that in
645 the metaphysical context, the minimum degree of similarity can be extremely low,
646 thereby including the sharing of any property, including trivial properties such as
647 *being one* or *being an individual*. Thus, the requirement that, in order for the coun-
648 terfactual conditional to be true, the consequent has to be true at all *adequately similar*
649 possible worlds at which the antecedent is true would be reduced to the requirement
650 that the consequent is true at all the possible worlds at which the antecedent is true,
651 because any similarity would be enough and any couple of worlds share properties,
652 such as *being one* or even *being a world*. In counterfactual inevitability (*for every q*,
653 *q > p is true*) the position of the antecedent is universally quantified. It would turn
654 out that if *p* is counterfactually inevitable, then *p* is true at all the possible worlds at
655 which at least a value of *q* is true. For any world at least a value of *q* (*i.e.*, at least a
656 proposition) is presumably true at it. Thus—it might be tempting to conclude—if *p*
657 is counterfactually inevitable, then *p* is true at all possible worlds.

658 However, this line of argument in favour of the entailment from counterfactual
659 inevitability to truth at all possible worlds should be resisted. Even in metaphysical
660 contexts, it is not the case that any similarity with the actual world is sufficient to be
661 in the domain of worlds, among those at which the antecedent of the counterfactual is
662 true, which matter for the truth conditions of the counterfactual conditional. A major
663 methodological component of metaphysics (and of many other subfields of philos-
664 ophy) is constituted by *thought experiments*. In two famous thought experiments, we
665 imagine for example that two indistinguishable spheres are at a one-meter distance
666 from each other (as in Black, 1952); or that the wood planks constituting a ship are
667 replaced one by one (as in the literature about the ship of Theseus).

668 As Williamson (2007, ch. 6) has convincingly shown, assessing a thought exper-
669 iment in metaphysics (and in philosophy in general) is tantamount to assessing a
670 counterfactual conditional: the antecedent is a description of the scenario that we
671 are asked to imagine, while the consequent is a claim of philosophical interest. In
672 assessing the counterfactual, we evaluate whether the claim of philosophical interest
673 would be true or false, if the counterfactual scenario were the case. There is nothing
674 trivial in this evaluation. We *should not* be *too* liberal in selecting, among the possible
675 worlds at which the antecedent is true, those at which the consequent has to be true,
676 in order for the counterfactual conditional to be true. We should only focus on those
677 possible worlds that are significantly and substantially similar to the actual world.
678 It is true that in metaphysics we should be *somewhat* liberal about the degree of
679 similarity and neutral about the respects of similarity, but this does not mean that
680 *anything goes*.

681 Inasmuch as it is false that anything goes, counterfactual inevitability does not
682 entail truth at all possible worlds and the conception of metaphysical necessity as
683 counterfactual inevitability does not collapse into the conception of metaphysical
684 necessity as truth at all possible worlds. The former conception has the limits that

685 I have already underlined in §2 and is particularly unable to confer any unity to
686 metaphysical modality.

687 The different and stronger conception of metaphysical necessity as truth at all
688 possible worlds does not fare better than counterfactual inevitability from this view-
689 point; it is not clear at all what kind of unity it may confer to metaphysical modality.
690 Another serious, connected defect is that the limits of the domain of possible worlds
691 are not independently settled. Which kind of limit does the attribute "possible" in
692 "possible world" express? It risks expressing the fact that at all possible worlds all
693 the absolute/metaphysical necessities hold true, and that at no possible world does
694 any absolute/metaphysical impossibility hold true. If the purpose is to draw the limits
695 of the entire domain of possible worlds, surely the only kind of modality that can
696 turn out useful is the absolute one. If this were the case, the conception of abso-
697 lute/metaphysical necessity as truth at all possible worlds would not be explicative
698 at all. First, this conception does not pinpoint any unitary source of metaphysical
699 modality; second, at the end of the day, it *presupposes* metaphysical modality.

700 The only hope for avoiding this outcome is the adoption of a *reductive* theory of
701 possible worlds, which characterises possible worlds in a non-modal way. In David
702 Lewis' modal realism (Lewis, 1986), possible worlds are giant individuals, which
703 are characterised by being closed under relations of spatio-temporal distance. This
704 characterisation of possible worlds does not presuppose metaphysical modality.

705 Nonetheless, even if you shoulder modal realism's heavy ontological costs,[7] you
706 obtain no unitary account of absolute/metaphysical modality. From this viewpoint it is
707 unsurprising that Lewis—as far as I know—never employed the phrase "metaphysical
708 modality" in presenting his own theories, neither in *On the Plurality of Worlds* nor in
709 any of his other works. A radical reductionist about modality, Lewis thought that any
710 modal claim should be paraphrased away, in favour of quantifications over worlds (in
711 the case of *de dicto* modalities) or parts of worlds (in the case of *de re* modalities). For
712 him, absolute necessity and possibility can be reduced to quantification over worlds
713 and their parts, where worlds are characterised non-modally. Absolute modality has
714 no special *source*, and is not even especially bound to metaphysics as a discipline.

715 Lewis was *au fond* sceptical of modalities;[8] according to him, modalities can be
716 treated in an acceptable way only by *replacing* them with non-modal notions. As
717 shown in §2 and convincingly argued in Williamson (2016, §2), the main reasons
718 to be sceptical of metaphysical modality are also reasons to be sceptical of objec-
719 tive modalities in general. Thus, inasmuch as Lewis was sceptical of modalities in
720 general, it is unsurprising that he had no real use for the concept of metaphysical
721 modality. We can interpret metaphysical modality in terms of Lewis' modal realism.
722 In this way, *if* we are willing to shoulder the ontological costs of modal realism, we
723 obtain a real, non-circular explanation of metaphysical necessity in terms of what
724 occurs at a totality of certain individuals, with certain well-defined features (namely,

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[7] Perhaps because you think that its explanatory benefits outbalance the costs, in coherence with
Lewis' typical cost-benefit approach to philosophy. See Nolan (2015) on this matter.

[8] See for example Beebee and MacBride (2015) on this point.

closure under spatio-temporal distance). However, once we have made this move, metaphysical necessity no longer has any role to play.

Moreover, it should be observed that Lewis' reductionism about modality is notoriously silent about all the necessities that do not concern *spatio-temporal* entities. Presumably, logical truths and mathematical truths hold true at all possible worlds, that is, at all spatio-temporal closed individuals. However, how does modal realism explain these logical and mathematical necessities? Numbers or sets are not parts of possible worlds, inasmuch as any part of a possible world is at some spatio-temporal distance from all other parts of that world, and numbers and sets do not plausibly participate in any relation of spatio-temporal distance. Thus, the absolute necessity of logical and mathematical truths is only assumed (and not explained) by Lewis' modal realism.

Lewis was also a radical Humean, and consequently—*pace* some exegetical controversies about this (see for example Buras, 2006; Nencha 2017; Paul, 2006)—an adversary of necessary connections and essences. This means that on the one hand, logical and mathematical necessities are simply assumed to hold true at all possible worlds, without any real explanation. On the other hand, it is unclear how many other absolute necessities modal realism admits and accounts for. For a Humean, does anything hold true at all possible worlds and (in contrast to logical and mathematical truths) *really relate* to how possible worlds are, according to modal realism? Not many interesting examples come to mind, again confirming Lewis' coherence in his own overall approach in refraining from speaking of metaphysical necessity.

Arguably, some instances of metaphysical necessity are consequences of the tenets of modal realism itself. For example, inasmuch as possible worlds are spatio-temporal closed individuals, there is no *empty* world at which nothing exists (see Lewis, 1986, pp. 73–74); consequently, it is true at all possible worlds that at least one entity exists. Thus, it is absolutely necessary that at least one entity exists. However, the resulting conception of absolute/metaphysical modality ends up being quite disappointing, given that a) it fails to explain the absolute necessity of logical and mathematical truths and b) it only works for some instances of metaphysical necessities that are the outcomes of modal realism itself.

This overall picture suggests that modal realism offers no real benefit for the purpose of explicating absolute/metaphysical modality, coherent with the fact that it is a tool to *get rid* of modality in general, by analysing it in non-modal terms. Thus, we are back to the other, non-reductive theories of possible worlds, which have no ambition to get rid of modality (as well as metaphysical modality), inasmuch as the same notion of possible world is for them intrinsically and unavoidably modal. However, this also means that possible worlds are those where absolute/metaphysical necessities hold true and where absolute/metaphysical impossibilities do not hold true.

It is therefore doubtful that any explanatory analysis is obtained, and even more doubtful that we obtain any explanation of what metaphysical modality is. Possible worlds can be perhaps expected to be in a sense explanatory with respect to various concepts of modalities (including metaphysical modality) and in particular to their

769 logic, if accessibility relations are countenanced. There is a well-known correspon-
770 dence between the formal features of the accessibility relation and the axioms of
771 modal logic; thus, many theorists of possible worlds would argue that the formal
772 features of the accessibility relation among worlds for a certain variety of modality
773 explain the fact that a certain axiom holds for this variety of modality.

774 The attribution of this kind of explanatory duty to possible worlds is also contro-
775 versial, but we do not need to enter these controversies. Non-reductive theories of
776 possible worlds may be useful to represent or even explain the logic of metaphysical
777 modality, but, inasmuch as metaphysical modality is truth at every possible world,
778 they are unhelpful in drawing the limit between what is metaphysically possible and
779 what is not. This is especially clear if *impossible worlds* are countenanced.[9] It is
780 beyond this paper's scope to assess the merits and the difficulties of the doctrine
781 of impossible worlds. However, it should be noted that if there are good reasons
782 to think that impossible worlds also exist, then again the limit between possible
783 and impossible worlds risks consisting in the fact that possible worlds respect abso-
784 lute/metaphysical necessities, while impossible worlds are such that at each of them
785 at least one absolute/metaphysical necessity is false.[10] Again, this means that this
786 limit is assumed and not analysed or explained by non-reductive theories of possible
787 worlds. This holds true even independently of any commitment to impossible worlds,
788 which only highlight the problem of delimiting the domain of possible worlds, inas-
789 much as—if impossible worlds also exist—there are other worlds from which the
790 possible ones have to be distinguished.

791 Thus, on one hand, *non-reductive* theories of possible worlds do not explain what
792 absolute/metaphysical modality—and in particular the limit between what is meta-
793 physically possible and what is not such—consists in. On the other hand, in the main
794 *reductive* theory of possible worlds (namely, Lewis' modal realism), many absolute
795 necessities (*e.g.*, logical and mathematical necessities) are not really accounted for,
796 and there are few and rather uninteresting other ones. Consequently, there are good
797 reasons to think that the theories of possible worlds (both non-reductive and reduc-
798 tive ones) are not really helpful in characterising metaphysical modality. They do
799 not bring any advantage over the conception of absolute/metaphysical necessity as
800 counterfactual inevitability, and this conception is in turn already lacking, inasmuch
801 as it does not confer any kind of unity to absolute/metaphysical necessity.

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[9] See, *e.g.*, Rescher and Brandom (1980), Zalta (1997), Nolan (2014), and Priest (2016). See Berto and Jago (2018) for an overview and Berto and Jago (2019) for an in-depth systematisation.

[10] In the literature about impossible worlds, there are several contoversial attempts to draw the distinction between possible and impossible worlds, usually focused on logical possibility and not on metaphysical possibility. See Berto and Jago (2019, §1.4).

6 Conclusion: Terminological Issues

As seen in §2, the conception of metaphysical modality as absolute modality has an advantage regarding the dialectics with the modal sceptic, inasmuch as there is no specific reason to be sceptical of *absolute* objective modality. Perhaps there are good reasons to be sceptical of objective modalities in general (but these reasons are beyond the purpose of this paper). Nonetheless, once we have admitted some objective modalities in general, absolute/metaphysical modality can be easily characterised on the basis of them. However, the absolutist conception of metaphysical modality does not confer any unity to it, as it is especially evident once absoluteness is analysed in terms of counterfactual inevitability.

The general problem of the absolutist conception seems to be its blindness to the sources or grounds of metaphysical modality. As seen in §4, the conception of metaphysical modality as modality grounded by essences directly addresses this problem, precisely because essences are pinpointed as the grounds at stake. We can doubt the existence of essences (and the general defence of essentialism is also beyond the purpose of this paper), but if they exist, they are excellent candidates for the role of grounds for absolute modalities.

However, we have found that for conceptual/analytic and logical modalities the idea that they are grounded by essences leads us to problematic commitments. In general, essences seem unfit to ground *de dicto* modalities. In some cases (*e.g.*, for logical necessities) and in open contrast with the absolutist conception, the essentialist might concede that they are absolute, but not metaphysical. The essentialist might try to enforce the typical essentialist metametaphysical stance, according to which metaphysics is the study of essences, so that where essences are not involved, the attribute "metaphysical" is misapplied. Once this position is assumed, the essentialist account of metaphysical modality cannot fail, inasmuch as any instance of necessity where essences are not involved becomes *ipso facto* non-metaphysical, precisely because essences are not involved.

This move risks being crafty and unconvincing on the part of the essentialist; metaphysics is a *really practised* discipline, with a long historical pedigree. Nobody is allowed to decide out of the blue which doctrines or notions deserve to be called "metaphysical". Deciding it out of the blue is an especially deviant methodology if the purpose is to show that a certain conception of metaphysical *x* (in our case, metaphysical *modality*) is preferable to other rival conceptions of metaphysical *x*. The essentialist is dialectically not allowed to rule out all the counterexamples to her own conception of metaphysical modality by simply affirming that these counterexamples do not belong to metaphysics in the light of her own essentialist metametaphysics (to which the adversaries will unlikely subscribe—and in any case, are not forced to do so).

There seems to be no way to reconcile how absolutists and essentialists construe metaphysical modality. Here, I can do no more than try to assess who, between the two parties, is more entitled to speak about metaphysical modality or more precisely,

844 to use the corresponding lexicon, that is, expressions in the vicinity of "it is meta-
845 physically necessary that" and "it is metaphysically possible that". This assessment
846 applies a quite simple rule of thumb, which I think to be widely applicable: a philo-
847 sophically disputed term, *i.e.* a term that is employed by two or more philosophical
848 parties in distinct and irreconcilable ways, is more appropriately used by that party
849 (or those parties) that has (have) no adequate and already established *alternative term*
850 for the same concept. The other parties can be content with the alternative terms, and
851 avoid using the disputed ones: this will prevent confusions and (in the specific case)
852 the misleading illusion that a single concept of metaphysical modality is discussed
853 in the debate.

854 As far as absolutists are concerned, their jargon has two equivalent, denominations
855 for modality: "absolute" and "metaphysical". The adjective "absolute" adequately
856 serves the purpose of expressing the notion at stake and is free of specific and
857 potentially distracting connotations that—in contrast—the adjective "metaphysical"
858 unavoidably carries. The existence of multiple labels for the same concept is a *waste*
859 of linguistic resources. This waste is not innocuous, precisely inasmuch as one of
860 the labels ("metaphysical") has diverging and potentially misleading connotations.

861 More specifically, it is methodologically inadvisable to use "metaphysical" for
862 conceptual/analytic, logical and mathematical necessities and possibilities, unless we
863 accept a commitment to an underlying, substantial doctrine that motivates this lexical
864 choice. If we want to underline their absoluteness, we can call them "absolute".
865 If we want to emphasise their sources, we cannot prescind from a theory about
866 their sources. If we accept a commitment to analyticity as a source of necessity,
867 those necessities that are so originated can be called "analytic". If we think that
868 mathematics is an autonomous source of necessities, the ensuing necessities can be
869 called "mathematical".

870 The usage of "metaphysical" for necessities and possibilities on the part of the
871 essentialist is arguably more justifiable from the viewpoint of the rule of thumb for
872 philosophically disputed terms I sketched above. While the absolutist has "abso-
873 lute" as an alternative at her disposal, "essential" is not a good replacement for
874 what the essentialist wants to express with "metaphysical". As shown in §4, since
875 essentiality is always perspectival with respect to the bearers of certain essences, the
876 essentialist needs a general term for qualifying those necessities that are grounded by
877 some essences. There is no alternative, established label at the essentialist's disposal.
878 Moreover, the usage of the term is justified by the fact that the concept of essence is
879 undeniably central in the practice and the history of metaphysics.

880 This does not force the essentialist to be radical and to claim that all the modalities
881 discussed in metaphysics are *ipso facto* grounded by essences. The essentialist needs
882 specific arguments for this claim, and (as shown in §4) this is rather implausible in
883 many cases. In the case of those modalities that belong to metaphysics but are not
884 grounded by essences (in some of our examples, the necessity of the transitivity of
885 parthood and the necessity of supervenience claims), there is no point in insisting
886 that they are metaphysical because they belong to metaphysics. In most cases, there
887 is no need to clarify through a specific adjective or predicate that a certain claim
888 (including modal claims) belongs to a particular subfield of philosophy. If this need

⁸⁸⁹ emerges, it can be served precisely by the predicate "to belong to metaphysics" and
⁸⁹⁰ its derivatives (*e.g.*, "belonging to metaphysics").

⁸⁹¹ This allows us to finally reserve expressions such as "metaphysical modality",
⁸⁹² "metaphysical necessity" and "metaphysical possibility" for modalities grounded by
⁸⁹³ essences. It is important to reiterate that, as I emphasised in §1, this proposal is not
⁸⁹⁴ committed to any specific example of metaphysical necessity or possibility. Thus, the
⁸⁹⁵ claim that "metaphysical", when referring to modalities, is better reserved for what
⁸⁹⁶ is grounded by essences for general reasons concerning the usage of philosophically
⁸⁹⁷ disputed terms does not commit us to the specific essentialist claims that—say—
⁸⁹⁸ belonging to a certain species is an essential feature of every organism or that a
⁸⁹⁹ human being is essentially rational. These essences, if they indeed exist, would be
⁹⁰⁰ sources of necessities. Every dog would be such that it is metaphysically necessary
⁹⁰¹ that it is a dog; every human being would be such that it is metaphysically necessary
⁹⁰² that he or she is rational. However, the characterisation of metaphysical modality
⁹⁰³ as modality grounded by essences is not committed to any specific identification of
⁹⁰⁴ essences.

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