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The Problem of Modally Bad Company*

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Abstract

A particular family of imagination-based epistemologies of possibility promise to provide an account that overcomes problems raised by Kripkean *a posteriori* impossibilities. That is, they maintain that imagination plays a significant role in the epistemology of possibility. They claim that imagination consists of both linguistic and qualitative content, where the linguistic content is independently verified not to give rise to any impossibilities in the epistemically significant uses of imagination. However, I will argue that these accounts fail to provide a satisfactory basis for an epistemology of possibility as they fall victim to, what I call, the problem of modally bad company. In particular, I will argue that there is a deep methodological problem that these accounts face: in order to deliver the significant epistemology of possibility that they promise, they have to rely on problematic prior knowledge of necessities.

Keywords: [Epistemology of Possibility; Imagination; Linguistic Content; Modality; Epistemology of Imagination]

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INTRODUCTION

Many have argued that we use imagination to help us judge whether non-actual possibility claims are true or not. The idea, very roughly, is that imagining a situation provides us with *prima facie* justification that that situation is possible.[1] Even though this picture enjoys some intuitive appeal, there are a number of issues that a detailed *imagination-based epistemology of modality* needs to address. For example, the term 'imagination' is very heterogeneous; there are many, seemingly distinct cognitive phenomena that we refer to with it (cf. Kind 2013; Balcerak Jackson 2018). Moreover, almost everyone in the literature agrees that imagination has to be *restricted* if it is to have any significant epistemological value (cf. Kind 2016; Kind & Kung 2016; Williamson 2016; Balcerak Jackson 2018).[2] Any imagination-based account of the epistemology of non-actual possibilities needs to, thus, specify what exactly it takes imagination to be and how it is that that particular cognitive phenomenon justifies our beliefs about non-actual possibilities.

In this paper, I will argue that one particularly popular account of imagination – what I will call *QALC imagination* – fails to provide a satisfactory basis for an epistemology of possibility.[3] In particular, I will argue that there is a deep methodological problem that these accounts face: to deliver the significant epistemology of possibility that they promise, they have to rely on problematic prior modal knowledge.

We proceed as follows. In the next two sections, I will describe what I take QALC imagination to be, after which I will discuss how this account of imagination is supposed to play a role in the epistemology of possibility in section 3. In section 4, I will set out the problem of modally bad company, which I take to affect these QALC imagination-based epistemologies of possibility. Sections 5 and 6 discuss potential responses to this problem and argue that they ultimately fail. I stress the methodological importance of the findings of this paper in section 7, before concluding.

Before we start, let me briefly discuss two assumptions most imagination-based epistemologies of modality accept; these will help focus the discussion.

First, we focus on the epistemology of *possibility* and largely ignore the epistemology of necessity.[4] Imagination-based approaches argue that imagination might

[1] Throughout this paper, I will focus on *metaphysical* modality unless otherwise specified.

[2] Though see Stuart (2020) for an argument in favour of the epistemological value of *un*restricted imagination.

[3] The abbreviation will be explained shortly.

[4] Hale (2003) forcefully argued – based on the interdefinability of these two different modal, i.e.,

provide us with justification for beliefs in *possibility*-claims. I follow suit. (See Roca-Royes 2017, p. 226 for arguments in favour of a possibility-first approach in general.)

Secondly, we will not engage with *radical* modal scepticism. That is, I take it that we have at least *some* knowledge of possibilities.[5] This doesn't mean that one has to hold that for each possibility, we can judge whether it is true or not; so we leave room for modal modesty (cf. van Inwagen 1998; Hawke 2011; Strohminger & Yli-Vakkuri 2018; Hawke & Schoonen 2020). That we have some modal knowledge is supported by empirical results from the developmental cognitive sciences and the growing literature in the psychology of modality (cf. Nichols 2006; Rafetseder et al. 2010; Gopnik & Walker 2013; Lane et al. 2016; Phillips & Knobe 2018; Phillips et al. 2019; Leahy & Carey 2020).

1 Imagination and Epistemology of Possibility

A posteriori necessities are necessities that require empirical investigations into the actual world. For example, we needed to empirically investigate the micro-structure of water in order to know that water is H_2O. Kripke (1980) and Putnam (1973) forcefully argued that these kinds of identities (amongst other things) are in fact necessary.[6] The acceptance of such Kripke-Putnam *a posteriori* necessities, raises problems for imagination-based epistemologies of possibility: the negation of an *a posteriori* necessity is easily imaginable (in many cases actually believed), but if we can imagine such *impossibilities*, how can imagination justify our beliefs in what is possible?

There are roughly two ways in which people have responded to the problem of *a posteriori* necessities with respect to the epistemological value of imagination: (i) adopt an *error-theory* with regards to imagination or (ii) try to *restrict* the imagination relevant for the epistemology of possibility.

$\Diamond\varphi \equiv \neg\Box\neg\varphi$ – that there can be different approaches to the epistemology of modality. One can either focus on a *necessity-first*; a *possibility-first* epistemology; or an symmetrical (i.e., non-uniform) approach. For example, in the former case, one provides an epistemology for necessity claims and then holds that our knowledge of possibility claims is derivative on that (cf. Hale 2003; Fischer 2016; Vaidya 2016).

[5] Let me acknowledge that I am not particularly concerned with the difference between justification and knowledge and sloppily talk of 'justifiably believing φ' and 'knowing φ'. In doing so, I follow Fischer (2017, pp. 6-7) in assuming that little turns on this distinction in the epistemology of modality. Strictly speaking, I evaluate QALC imagination theories for their role in *justifying* (whatever that exactly is, cf. Fumerton 2002) our beliefs about what is possible.

[6] Putnam (1990) later distanced himself from the *metaphysical* nature of these necessities.

Kripke (1980) himself accepted the first approach and adopted an error-theory with regards to imagination. The idea is that every time you think you have imagined an impossibility, you are mistaken about what you think you're imagining: you actually imagined something that is possible, but (almost) indistinguishable from the impossibility that you think you are imagining (cf. Hill 1997). Kripke, on a imagining the impossibility of a wooden lectern being made out of ice, points out that "one could have the illusion of contingency in thinking that this table might have been made of ice. We might think one could imagine it, but if we try, we can see on reflection that what we are really imagining is just there being another lectern in this very position here which was in fact made of ice" (1971, p. 157).

It is important to note that such an error-theory entails a universal claim: *each* time you think you imagine an impossibility, you are mistaken in what you imagine.[7] So, the claim is about imagination *irrespective* of its role in the epistemology of modality. It is not that error-theorists hold that you can imagine impossibilities in general, but when we engage with the epistemology of modality, it turns out that we are mistaken about what we imagine when imagining impossibilities. The error-theorists thus has to explain away *all* our intuitive imaginings about impossibilities as mistaken. For example, say that you have to pick up a guest speaker at the airport and all you know is that their name is 'Quinn'. You stand their imagining that Quinn is a blonde man, but when they arrive, it turns out that you were wrong and Quinn is a woman. When you meet them, "[y]ou might laugh and tell her, 'I imagined that *you* were a man!"' (Kung, 2016, p. 95, original emphasis). If biological sex is a Kripkean *a posteriori* necessity, which many take it to be, then, according to the error-theorist, this is wrong; you did not imagine *her*, you imagined someone that you mistook for Quinn. But this seems highly implausible. There is no doubt in your mind that you imagined her, Quinn, and not some other person.[8]

QALC imagination theorists *reject* error-theories, but still hold that imagination provides us with justification for our beliefs in what is possible. That we can imagine impossibilities is an intrinsic assumption about our imaginative capacities – *irrespective* of one's modal epistemological intuitions – for them.[9] This means that they have

[7] Thanks to Francesco Berto for helping me get clear on this.

[8] See Priest (2016b, p. 195) for further examples. Kung (2016) presents additional forceful arguments against error-theories of imagination and concludes that "[a]s a general rule I get to say who my imagination is about" (2016, p. 103, fn. 27). Wright (2002, 2018) also presents examples that seem especially hard to explain away for error-theorists.

[9] If we consider just our imaginative capacities on their own, this seems quite plausible: I can easily imagine that unicorns are walking in the streets of St. Andrews or that David Bowie is my

to *restrict* imagination and single-out those imaginings that are to play a role in our epistemology of possibility.

2 QALC IMAGINATION

One of the main desiderata of a QALC imagination theory is that they give the correct predictions for Kripke-Putnam cases (i.e., *a posteriori* impossibilities) without appealing to an error-theory. "[I]maginability is a guide to possibility only if Kripkean impossibilities are unimaginable" (Byrne, 2007, p. 130).[10]

Another desiderata of QALC imagination theories is that they go beyond the limitations of a Humean, imagistic account of imagination, where imagination *only* has qualitative content without any linguistic content. On such a Humean account, one can no longer distinguish *Wittgenstein* from a qualitative duplicate of him; or distinguish the imagining of two mono-zygotic twins Quinn and Blake, where Quinn sits next to a standing Blake, from one where Blake sits next to a standing Quinn. QALC imagination theories aim to improve upon such a Humean picture by capturing numerical distinctness via *linguistic content*.[11,12]

I take QALC imagination to be theories of imagination that capture *Q*uantity and *A*boutness via *L*inguistic *C*ontent.[13] More specifically, we take a QALC imagination-based epistemologies of possibility to be the following:

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father. We might imagine that all the tigers are actually cleverly disguised robots and we can imagine that water is XYZ (cf. Kung 2010; Priest 2016a; Balcerak Jackson 2018; Berto & Schoonen 2018).

[10]Similarly, Kung points out that "[a] virtue of this account is that it dovetails with the Kripke-Putnam thesis about *a posteriori* necessities" (2010, p. 650). And Gregory says that "[p]utting together the above remarks on the plausible instances of simple a posteriori refutable impossibilities, we get that nothing will plausibly be viewed as a simple a posteriori refutable impossibility which is unshakeably imaginable" (2004, p. 335).

[11]There are multiple phrases used to denote this kind of content, e.g., 'assigned content', 'stipulated content', etc. I will use 'linguistic content' as I feel it is the least misleading and I intend to remain non-committal about what it is exactly.

[12]See Kung (2017, especially sec. 8.4) for a detailed description of the Humean account and the improvements thereupon by accounts of QALC imagination.

[13]Often, when I talk of 'QALC imagination theorists', I talk of theorists who provide a QALC imagination-based epistemology of possibility.

A theory is a QALC imagination-based epistemology of possibility if

1. It distinguishes between qualitative indistinguishable imaginings via linguistic content.[a]

2. It aims to give the correct predictions on Kripke-Putnam cases without appeal to an error-theory.

[a] Equivalently, it captures numerical distinctness ('aboutness' if you will) through linguistic content.

These two criteria capture exactly the two points at which QALC imagination theorists aim to improve upon traditional theories of imagination and imagination-based epistemologies of modality. Traditional accounts cannot distinguish between qualitatively indistinguishable imaginings, hence criterion **1**, and traditional imagination-based epistemologies gave the wrong predictions on the Kripke-Putnam cases, hence criterion **2**.[14]

When defined in such a way, many theories can be categorised as QALC imagination. For example, early epistemologists of modality who tried to define what exactly it is to *conceive* of something, such as Yablo (1993) – "p is conceivable for me if I can imagine a world that I take to verify p" (p. 29) – and Chalmers (2002) – "[o]ne modally imagines that P if one modally imagines a world that verifies P, or a situation that verifies P" (p. 151) (but also Van Cleve 1983; Tidman 1994; and Hill 1997). More recently, people have started to develop this kind of imagination *independently* from the idea that it is the correct way of spelling out what conceivability is. For example, Geirsson (2005) – "[w]hat is important is that regardless of whether one uses propositional or pictorial imaging one can construct *scenarios*" (p. 293, original emphasis) – and Dohrn (2019) – "[o]ne is justified to believe that p is possible if one entertains a suitably concrete and consistent representation of a world which one takes to verify p" (p. 8). To give a sense of how widespread the idea is, the following authors also discuss (and sometimes defend) theories that, according to the above definition, are theories of QALC imagination: Kripke (1980); Gregory (2004); Byrne (2007); Fiocco (2007); Stoljar (2007); Doggett & Stoljar (2010); Gregory (2010); Kung (2010); Hartl (2016); Lam (2017); Berto (2018).[15]

[14] See Yablo (1993) for a variety of attempts of dealing with the Kripke-Putnam cases.

[15] Some of these authors reject the idea that QALC imagination is a guide to the possible (e.g., Byrne 2007 and Fiocco 2007) and other suggest that it is QALC imagination *in addition* to something else (e.g., Hartl 2016 and Dohrn 2019). Yet all of these authors do discuss QALC imagination.

The linguistic content does a lot of work in these theories, so let us discuss it in a bit more detail. Linguistic content is, roughly, content that comes with qualitative content. Kung (2010) distinguishes between different types of linguistic content: *labels* and *stipulations*. Labels are very simply (linguistic) labels that 'attach' to the things in the qualitative image. So, when I imagine Susan giving a lecture, I do not only imagine a thing qualitatively similar to Susan, I am sure that I am imagining *her*, Susan. This is secured through the label, 'Susan', that accompanies the qualitative content. Stipulations, on the other hand, are propositional contents that go "above and beyond that of the mental image" (Kung, 2010, p. 625), i.e., that do not 'attach' to specific parts of the qualitative content. When, for example, I imagine Andy and Susan meeting as friends, their friendship, that they meet on a Friday and speak English are all stipulated content.[16] (Note that this distinction between labels and stipulation is not essential for a QALC imagination-account.)

There are two things that deserve emphasis. First, it is important to stress that even though we can pull apart these two kinds of content – i.e., qualitative and linguistic – in analysing imagination, cognitively speaking imagination is *not* a two-stage process. We do not imagine a qualitative scene and then add in the linguistic content. We imagine a situation with all its content in one go – i.e. the "imagery comes with everything already labelled and stipulated" (Kung, 2010, p. 625).

Secondly, the above does not presuppose, what Wiltsher (2016) calls, *the additive view* of imagination. That is, even if one thinks that imaginings do not have two distinct content components, they could still, more or less, accept this description of QALC imagination. For example, Wiltsher argues against the two content components in imagination (he argues that there is only qualitative content), but even he still accepts that there are sometimes imaginings that have additional linguistic content. Conversely, Hutto (2015) suggests that there is only linguistic content in imaginings, but even he agrees that there are instances of mental imagery.[17]

[16]Thanks to an anonymous referee of another journal for pushing me to make the difference between labels and stipulations clearer.

[17]For a nice discussion of both their arguments and the additive view, see Tooming (2018).

3 QALC Imagination as an Epistemology of Possibility

QALC imagination theorists hold that imagination can justify our beliefs in what is possible, while acknowledging Kripkean *a posteriori* necessities and rejecting an error-theory for imagination. This means, that they have to address two questions: (i) can their theory account for our intuition that we can imagine impossibilities? and (ii) how does this account play a role in the epistemology of possibility? Note that these two questions seem in immediate tension with each other. We will start by discussing the answer to the first question, which will give rise to the second question.

How we are able to imagine the impossible is easily explained: by means of the linguistic content. There are plenty of imaginings that represent impossibilities and in most cases it is the linguistic content doing the work. Consider for example the following imaginings:

(1) David Bowie is my father.

(2) Mark Twain is fighting Samuel Clemens.

(3) Quinn is a cleverly disguised robot.

The linguistic contents involved are nothing out of the ordinary. Imaginings that combine these linguistic contents with particular qualitative content, are imaginings of impossibilities (cf. Priest 2016b; Berto & Schoonen 2018).[18]

How is it that QALC imagination can be a guide to what is possible if we can also imagine impossibilities?

3.1 Authenticating Linguistic Content

Remember that in order for imagination to be epistemically useful, it needs to be restricted (cf. Kind 2016; Kind & Kung 2016; Williamson 2016; Balcerak Jackson 2018).

[18]Whether or not purely qualitative content can represent impossibilities is open for discussion. Some think that the Escher-like paintings are a prime example of a purely qualitative impossibility (cf. Kung 2010 and Balcerak Jackson 2018), yet others suggest that these are just collections of *possible* qualitative contents that are jointly inconsistent (cf. Sorensen 2002). We need not engage in this discussion. For our purposes it is fine if it is *only* "by dint of assignment that we are able to imagine an impossible situation" (Kung, 2010, p. 636).

Though QALC imagination theorists are seldom explicit about this (with Kung 2010, 2016, 2017 a notable exception), for them the restriction comes from allowing only *certain kinds* of linguistic contents. Only linguistic content for which we have *independent* evidence that it is possible is allowed in imaginings that play a role in our epistemology of possibility. So, we need to verify or authenticate the relevant linguistic content, which happens *recursively*. That is, there can be verification through imagination as well as verification through "some other source" (Kung, 2010, p. 642). The main source of verification that is discussed is *evidence from actuality* (e.g., Gregory 2004, 2010; Kung 2010; Dohrn 2019). As an example, here is how this process of authentication is applied to an imagining of Andy and Susan that we intend to use to justify our belief that they could be distinct:

> One needs to authenticate that Andy could possibly exist and does so by appealing to the actual existence of Andy. This allows us to use the label 'Andy'.[19] The same goes for Susan. Further, one can "appeal to the actual diversity [of Andy and Susan] to satisfy [the distinctness] demand" (Kung, 2010, p. 644).[20]

The recursive authentication seems to work quite well. Our imagination that Susan and Andy are distinct can justify our belief that they could be distinct. However, as we cannot authenticate the distinctness of water and H_2O, QALC imagination does *not* justify us to believe that it is possible that water is not H_2O. This means that QALC imagination seems to be able to accommodate **2**: they seem to able to deal with the Kripke-Putnam cases. This is the hallmark of QALC imagination-based epistemologies of possibility (remember the quotes from Gregory 2004; Byrne 2007; and Kung 2010 discussed above).

[19]Note that it is not trivial what the right account of 'labelling' is. Remember that the image comes "with everything already labelled" and that we are ourselves in charge which labels accompany the image – i.e., that imagination is up to us (Kung, 2010). I take it that a very natural understanding of labels is that we are certain to which parts of the qualitative image the labels apply.

[20]It might seem strange that distinctness is treated as linguistic content rather than qualitative content. Here is why. One need not authenticate that there is a qualitative occupant in space, this is the qualitative content. However, "[w]hat needs authentication is the *identity* of the thing," i.e. to what object it relates (Kung, 2010, p. 643, original emphasis). In line with criterion **1**, "*identities* are non-pictorial [i.e., linguistic] content. [...] [T]he image doesn't, in virtue of its qualitative features, depict particularity. The image does not distinguish between qualitatively identical tokens of the same type" (Kung, 2017, p. 146, original emphasis).

4 The Problem of Modally Bad Company

I will argue all is *not* well and that there is a deep methodological problem with these QALC imagination-based epistemologies of possibilities. The problem lies at the core of these accounts, as it concerns the combination of (authenticated) linguistic content and qualitative content. Different kinds of examples could highlight the problem, but it is best expressed by considering a pair of imaginings: one representing a mundane possibility and one representing an *a posteriori* impossibility. I will call such imaginings pairs of *modally bad company* and the resulting problem, the *problem of modally bad company*.[21] In a nutshell, the problem shows that QALC imagination-based epistemologies of possibility cannot allow linguistic content, even when it is authenticated, without reliance on problematic prior modal knowledge. The way that I will raise the issue here, with pairs of modally bad company imaginings, the problem presents itself as a dillema: either QALC imagination theorists *fail* to justify a wide range of mundane possibility-statements, resulting in *radical modal scepticism*, or QALC imagination theorists have to rely on problematic prior modal knowledge.[22] In its most general form, the problem suggests that there is a tension between the two core criteria of QALC imagination theories: by allowing linguistic content, one cannot rule out the specific Kripke-Putnam cases without reliance on prior modal knowledge.

One half of a modally bad company pair concerns an *a posteriori*, non-actual, mundane possibility-claim that is reliant on linguistic content. These kinds of cases are significant in number – involving, e.g., non-actual distinctness claims (Mark Twain is distinct from his non-actual twin); constitutional claims concerning non-actual possibilia (my non-actual pet dog being a dog); non-actual constitutional claims about actualia (me having metal hip); non-actual mental states of actualia (my non-actual headache); etcetera. Consider the following imagining as an example of such a case:

[21] The label is inspired by the *unrelated* problem of bad company for Neo-Fregeans (cf. Linnebo 2009 and Tennant 2017, fn. 19). Thanks to Francesco Berto and Thomas Schindler for pointing this out to me and pointing me to the relevant literature respectively.

[22] Maybe a weaker worry would already be problematic enough: there is an epistemic asymmetry between the members of a modally bad company pair that the QALC imagination theories cannot capture. This concerns the mundane and controversial nature of the two cases involved. However, as it is not obvious that the QALC imagination theorists are concerned with the different modal status of imagined situations (cf. van Inwagen 1998; Hawke 2011), I stick with this stronger worry.

MODALLY INNOCENT

(4) Imagine that Mark Twain is playing basketball with his, non-actual, twin brother: Mark Twin. Mark Twain is jumping higher than his brother.

This is a mundane possibility-claim: someone having a sibling more than they actually have (or, even more general, the possibility of non-actual things). I take it that any epistemology of possibility ought to predict that beliefs in such ordinary, mundane possibility-beliefs are justified. Collectively, these cases constitute a large part of the class of mundane possibility-claims such that "a theory of modal epistemology or modal metaphysics is likely to be viewed with suspicion if it suggests that we are *not justified in believing [them]*" (Hawke, 2011, p. 360, emphasis added).

I contend that if QALC imagination theories *fail* to account for these kinds of cases, their appeal as a promising epistemology of possibility is serverely undermined; irrespective of whether they manage to get the right predictions concerning the Kripke-Putnam cases. Luckily, QALC imagination theories have the tools to authentical such situations. As authentication by actuality is not possible here (except perhaps for the label 'Mark Twain'), the recursive procedure needs to appeal to something else. As Kung puts it, "how do we authenticate the assignment *something is X* when X does not exist? [...] The only option is to imagine a situation lacking that assignment where it is intuitive that one of the imagined things is X" (2010, p. 652, original emphasis). One way to do so is to imagine a generic, but obviously possible (i.e., with authenticated linguistic content) story about how two individuals would be distinct. Imagining diversity of origins would do the trick. So, we imagine Jane Clemens conceiving Mark Twain *and* Mark Twin; Jane's being pregnant; her giving birth; and her and John Clemens holding the twins. The labels of Jane and John Clemens can be authenticated by appeal to actuality and I take it that we can imagine the 'baptism by ostension' (Kripke, 1980) of the labels for Mark Twain and Mark Twin.[23] Let us call this explanation **Conception**.

It seems that if the QALC imagination theorists want to account for our justified beliefs in ordinary possibility-claims such as (4), they have a plausible story to tell. The problem of modally bad company is that the same story seems to be able to justify our belief in the modally bad counterpart of (4).

[23] One has to tell a story about the labels for actually non-existent objects and this seems as good as any. Moreover, an authentication story involving the origins of the non-actual objects involved, is exactly the kind of story that Kung (2010, p. 653) tells for a similar example.

Consider the modally bad counterpart of (4):

MODALLY SUSPICIOUS

(5) Imagine that Mark Twain is playing basketball with Samuel Clemens. Mark Twain is jumping higher than Samuel Clemens.

At best, we should take our epistemology of possibility to be agnostic on modal status of (5) (cf. Roca-Royes 2017); at worst (5) is impossible (as many QALC imagination theorists seem to think). Either way, our epistemology of possibility should *not* judge imagining (5) to provide us with evidence for its possibility. However, as I mentioned, the problem of modally bad company suggests that something like **Conception** seems to allow us to move from imagining (5) to justifiably believing its possibility, *unless* we rely on problematic prior modal knowledge.

To see this, let us see how a story similar to **Conception** applies to (5). We assume that the qualitative content in (4) and (5) is insignificantly different and that the relevant linguistic content is explicitly mentioned in the case description. What is crucial is the numerical distinctness between Mark Twain and Mark Twin/Samuel Clemens. In **Conception**, we recursively imagined distinct origins in order to justify the distinctness of Mark Twain and Mark Twin. For (5) we can do the same: we imagine the distinctness of the origins (by way of recursive imagination) of Mark Twain ans Samuel Clemens and then we either appeal to actuality for the labels or imagine the baptism.[24]

It seems as if QALC imagination theories justify our belief that (5) is possible in the same way it justified our belief in the possibility of (4). However, (5) is a paradigm instance of an *a posteriori* Kripke-Putnam impossibility – i.e., the kind of case that QALC imagination theories are committed to getting right.

One might think that the issue is just an idiosyncrasy of this particular example. This is not so, we can construct a whole range of modally bad company pairs.

- *A posteriori distinctness claims between actual objects and non-actual possibilia*:
  Modally Innocent: Some actual a is distinct from some non-actual b.
  Modally Suspicious: Mark Twain is distinct from Samuel Clemens.

[24] "One might protest, in Kripkean fashion, that the [people] wouldn't be [*Mark Twain* and *Samuel Clemens*]. But in my imagining, I am not leaving it open whether or not [they are]. As a general rule I get to say who my imaginings are about" (Kung, 2016, p. 103, fn. 27).

- *Non-actual mental states of agents*:

  Modally Innocent: Some actual *a* has a non-actual mental state Φ (e.g., I could have a headache even though I actually don't).

  Modally Suspicious: Mark Twain is a philosophical zombie.[25]

- *Constitutional claims about non-actual possibilia*:[26]

  Modally Innocent: Some *a* having a non-actual prosthetic *P* (e.g., my non-actual metal hip).

  Modally Suspicious: Mark Twain is a cleverly disguised robot.

In all these cases, the general problem that gets at the core of QALC imagination-based epistemologies comes to light. For non-qualitative, *a posteriori* non-actual situations, we need to combine qualitative content with linguistic content (often where the former justifies the latter); yet there is no principled way to *rule out* certain combinations of qualitative and linguistic content while allowing others (i.e., their modally innocent counterparts).[27]

This raises a dilemma for QALC imagination-based epistemologies of possibility:

Sceptical-horn: Reject the explanation of authentication for the modally innocent cases.

Acceptance-horn: Accept the explanation of authentication for the modally innocent cases.

The sceptical horn results, as we saw above, in unwarranted radical modal scepticism for a significant part of ordinary possibility-claims (e.g., I could have a headache).

[25] I am *not* claiming that philosophical zombies are *a posteriori* impossible, just that it is impossible for Mark Twain to be one.

[26] If you think, contra Siegel (2006), that sortal properties are *not* part of the qualitative content, then we can extent this problem even further. In that case, one needs to authenticate that my non-actual pet dog could be a dog. However, we can run the problem of modally bad company and use the same methods that we use to authenticate this to authenticate that Mark Twain is a dog. (Note that appeal to the perennialness of this property – i.e., the fact that once acquired, it is never lost – does not help, for not all perennial properties are necessary: e.g., being dead.)

[27] The issue can also be brought to light with other examples. I have a qualitative imagining of a Mohammad Ali-like objection punching a Cassius Clay-like object. Why is it that I am allowed infer possibility of an instance where I label the two objects 'Mohammad Ali' and 'Cassius Schmlay', but *not* when I label them 'Mohammad Ali' and 'Cassius Clay'?

This undermines the theory as a serious epistemology of possibility (cf. Hawke 2011). So, QALC imagination-based epistemologies of possibility should opt for the second horn, accept that their theory allows the modally innocent cases to justify the resulting modal beliefs. But then, given the problem of modally bad company, they need to address the Kripke-Putnam impossibilities that we also seem to be allowed to justifiably believe to be possible. There are two ways they can do so. (i) They suggest that these are *also* evidence for their possibility, but try to explain these cases away. (ii) They try to come up with a distinguishing feature that allows them to differentiate between the two cases.

I will discuss these options in turn in the next two sections.

5 The 'Fallibilism' Response

Could the QALC imagination theorists accept these findings without too much trouble? That is, can they accept that, in the modally suspiscious cases, their theory gives the wrong predictions about whether we should be justified in believing the represented situation's possibility?[28] Most QALC imagination theorists take their theory to be *fallible*: based on their theory's prediction, we are allowed to justifiably believe "that p even though one's evidence does not guarantee the truth of p" (Brown, 2018, p. 2) (cf. Leite 2010). So, one might argue, all I have shown is what they already acknowledge: "there are cases where imagining even according to [QALC imagination theories] will lead to an incorrect judgment about possibility" (Kung, 2010, p. 658).

The main objection to such a response is that it seems to cut out the heart of their own theory. Remember, all the modally suspiscious cases are instances of *a posteriori* impossibilities; negations of Kripke-Putnam cases. These were exactly the kinds of cases that *motivated* the QALC imagination theory as superior to a naïve imagination-based account (cf. Kung 2017). In particular, if their theory fails to give the correct predictions with respect to these Kripke-Putnam cases, they fail to satisfy the crucial criterion **2**. According to Byrne – who said that " 'imaginability is a guide to possibility' only if Kripkean impossibilities are unimaginable" (2007, p. 130) – these theories would no longer be proper epistemologies of possibility. Of course, one may suggest that in these particular cases some *other source* of modal knowledge should overrule our evidence from imagination, but given the sheer number of these

[28] Thanks for an anonymous reviewer for pushing this response on behalf of the QALC imagination theorists.

cases, this significantly undermines the attempt to "explain how a very reasonable epistemology of possibility *flows from* a theory of imagination" (Kung, 2010, p. 621, emphasis added).[29]

6 Discrimination Methods

In this section, I will discuss a number of methods that a QALC imagination theorist might appeal to in order to *distinguish* between the two imaginings of the modally bad company pair. I argue any *successful* method relies on problematic prior modal knowledge.

Follows from Linguistic Content alone.
The QALC imagination theorists might suggest that if something follows *from the linguistic content alone*, then we should not be justified in believing that that thing is possible. However, it is unclear why this condition would rule out the problematic case and *not* the good case. In both cases the same (kind of) claims follow from the linguistic content alone. If we are supposed to rule out the modally suspicious case on this basis, we should rule out the innocent case on the same grounds. Hence, this method fails to discriminate between the two cases.[30]

Absolute Certainty.
One might suggest that if one is *absolutely certain* about something, then if we imagine its negation this should not justify our believing the possibility thereof. This might be a *prima facie* plausible additional condition: if I am absolutely certain that

[29] Additionally, the cases that QALC imagination theorists would be sweeping under the fallibilist rug do not seem to be the kind of cases that they have in mind when they themselves suggests their theories to be fallible. They have in mind cases of where the *qualitative* content is misleading evidence, for example in cases of the famous Escher drawings (see for example Kung 2010, p. 658).

[30] Moreover, it is not obvious that this rules out (5) as evidence for its possibility. For one, the possibility-claim does not follow from the linguistic content alone, we also need the qualitative content of the birth of the two people and their jumping.

One might argue that this is an uncharitable interpretation and that in both these cases the imaginative content *does* all follow from the linguistic content. However, it is unclear why we should think that the imagination should count as evidence for its possibility *at all*, if we recognise that it is only the linguistic content that does the work. We already saw that linguistic content by itself gave rise to imagining impossibilities. So, if we recognise that it is only the linguistic content that is doing the work here, we should reject this imagining as playing a justificatory role from the start – i.e., why do we need the additional condition? Thanks to Pierre Saint-Germier (p.c.) for pushing me on this with an earlier version of this issue.

$2 + 2 = 4$, then even imagining it otherwise should not justify me in believing the possibility of $2 + 2 \neq 4$. However, the notion of absolute certainty is extremely strong. For example, Kung (2010, p. 629) mentions that I should not even be absolutely certain that I am Tom. It thus seems unlikely that we are absolutely certain that Mark Twain does not jump higher than Samuel Clemens.

Conceptual (In)Coherence.
Another sensible additional condition might be that if there is conceptual incoherence in an imagined scenario, that imagining should not justify any beliefs in what is possible. For example, imagining that there is a maple-leaf shaped oval does not justify one in believing that maple leaf-shaped oval are possible due to its conceptual incoherence (cf. Yablo 2002; Weatherson 2004). Yet, there is clearly no conceptual incoherence in the thought that Mark Twain jumps higher than Samuel Clemens.[31]

Unwillingness.
Some have suggested that we might be unwilling to imagine certain things and that this is something that we need to take in to account (cf. Gendler 2000; Weatherson 2004). This is clearly not the case with these scenarios.

Appeal to Actuality.
The reason why (5) is impossible, one might suggest, is that *in actuality* Mark Twain is Samuel Clemens (see van Inwagen 1998, p. 74, fn. 11 for something like this); therefore they *cannot* be distinct. Such a method hinges, implicitly, on prior *modal* intuitions. To see this, apply this reasoning to (4): because in actuality Mark Twain is twinless, he *cannot* have a twin. Appeal to actuality only works in "joint application [with] the theorem '$x = y \rightarrow \Box x = y$' " (van Inwagen, 1998, p. 74, fn. 11); which is knowledge that identities are *necessary*.[32] In order for this method to be successful, we need to know *which properties* are necessary (e.g., identities) and which ones are not (e.g., being twinless), *before* we can judge imaginings to give us evidence for possibility.

[31] Unless one holds that the concept 'Mark Twain' implies something like 'is necessarily identical to Samuel Clemens', but in such a case one use conceptual knowledge to smuggle in knowledge of necessities (see Roca-Royes 2019 on the issue of modally loaded concepts). Thanks to Deborah Marber for raising this issue.

[32] "[T]he claim that water is H_2O is metaphysically necessary is supposed to flow from conceptual knowledge that *if water is H_2O, it is so necessarily*, together with empirical knowledge that water is actually H_2O" (Cohnitz & Häggqvist, 2018, p. 420, emphasis added).

Conflicting Modal Intuitions.
Finally, it might be that having a *conflicting modal intuition* (potentially irrespective of our intuitions about the imagined situation), might help distinguish between the two cases.[33] As with appeal to actuality, this only works, if it does, due to prior knowledge of necessities.

Consider the range of (conflicting) modal intuitions. The conflict does not arise because we find it intuitive that Mark *doesn't* jump higher than Samuel. We also find it intuitive that this paper does not start with a 'Y' and that Mark Twain doesn't have a twin brother, but this doesn't count as evidence against the *possibility* of such imaginings. If that were so, then we could never gain evidence for *non-actual* possibilities through imagination. For similar reasons, the fact that we may find it intuitive that Mark *possibly* does not jump higher than Samuel is too weak. The only intuition that would 'conflict' is the intuition that Mark *couldn't* jump higher than Samuel: there is no situation, including the imagined one, where Mark jumps higher than Samuel. This modal intuition would indeed defeat the evidence from imagining (5), but explicitly requires prior knowledge of a necessity-claim.

7 The Problem of Prior Modal Knowledge

It thus seems that *if* there are successful methods of discriminating between two cases of a modally bad company pair, they rely on prior knowledge of necessities. This completely undermines the project of providing an epistemology of possibility, as I will argue in this section.

Remember that QALC imagination theorists aim to provide a *possibility-first* epistemology of modality.[34] That is, "we first arrive at knowledge of possible truths, and then aim to determine what necessary truths hold" (Vaidya, 2016, §0). As such, for any epistemology of possibility, relying on prior knowledge of necessity is clearly a methodological non-starter. Hale (2003) forcefully warned us against this when he made the distinction between symmetric and asymmetric epistemologies of modality and this worry has since been echoed throughout the literature. For example,

[33] Let me flag that *if* this works, then it is *not* the imagination that is doing the significant work, but whatever it is that provides us with the conflicting intuition (the same goes for the other additional conditions). Given the number of cases we can generate, this might seem problematic in and of itself. As Kung notes, "[i]f everything ultimately hinges on a modal intuition, then the imagined situation is irrelevant" (2010, p. 651). I will leave this objection aside.

[34] For example, "I am in a position to develop a positive account of when imagination *does* provide evidence for possibility" (Kung, 2010, p. 637, original emphasis).

Roca-Royes (2017) points out that, "[t]he methodological recommendation that emerges by reflecting on the issue of epistemic priority is as follows: aim at elucidating the [...] possibility knowledge that we have [...] in such a way that success here is *not* parasitic upon success in explaining knowledge of their essential facts" (p. 223, emphasis added). That is, "[w]e would like an account of a reliable, *autonomous* procedure for obtaining knowledge of [...] metaphysical possibility" (Hill, 2006, p. 230, emphasis added).

Independently of whether you think that the possibility-first approach is the correct one, those who *do* aim to provide an epistemology of possibility should *not* rely on prior knowledge of necessities, as it would undermine their entire project.

7.1 Objection: A non-uniform epistemology of modality

Maybe there is not such a strict separation between the epistemology of possibility and necessity. This seems to make the problem raised in this paper less problematic.[35] However, even if there is no strict separation, there are a number of reasons to still consider the reliance on prior modal knowledge to be problematic.

First of all, QALC imagination theorists promise to provide us with an account of how our ordinary possibility beliefs are justified. They have not delivered on this promise if all they do is push back the epistemological question to the epistemology of necessity and leave this unexplained. The explanatory value of the resulting QALC imagination-based epistemology would be incomplete and unsatisfactory as a philosophical explanation of our knowledge of possibilities. To paraphrase Roca-Royes, as long as "such capacity for [necessity] knowledge is left unsatisfactorily explained, [...] this compromises (the satisfactoriness of) the elucidations they provide of our ordinary possibility knowledge" (2017, p. 244).

More importantly, the suggestion that there is no strict separation between the epistemologies of possibility and necessity misses the point. Either, this suggestion implies that QALC imagination theorists do not need to explain *all* our modal knowledge, which is indeed true. In particular, QALC imagination theorists often explicitly admit that their theory has nothing to say about our knowledge of, e.g., mathematical and logical necessities. The problem of modally bad company, however, argues that ordinary possibility-claims – which should be explained by "a very reasonable epistemology of *possibility* [that] flows from a theory of imagination" (Kung, 2010, p. 621, emphasis added) – (and their modally bad counterparts) show the need for

[35] Thanks to Dominic Gregory for a useful discussion on these points.

prior knowledge of necessities. Alternatively, the suggestion that reliance on knowledge of necessities is not problematic (even for ordinary possibility-claims) is, in a sense, to admit defeat: QALC imagination-based epistemologies of possibility *fail* to be a successful possibility-first epistemology of modality as they require prior knowledge of necessities.

CONCLUSION

Maybe the QALC imagination theorist could reject one of the assumptions made in the beginning of the paper in order to get out of the problem of modally bad company. They cannot, on pain of being QALC imagination theorists as opposed to error-theorists, reject the claim that we can imagine impossibilities. The whole point of their theories is to provide an imagination-based epistemology of possibility that incorporates the imaginability of Kripke-Putnam *a posteriori* impossibilities. We can also be rather quick about the rejection of radical modal scepticism. There is a lot of evidence from developmental psychology and modal psychology that humans, children, and arguably even some primates, have knowledge of modal claims; either in the form of potential risk assessment (Byrne, 2005; Nichols, 2006) or in the form of dealing with future contingencies (Rafetseder et al., 2010; Lane et al., 2016; Redshaw et al., 2018). Denying that we have any modal knowledge at all seems highly implausible. We deal with our environment and the contingencies thereof by making continuous counterfactual and modal judgements, we need some knowledge of non-actual possibilities to survive (Hesslow, 2002; Pezzulo, 2011; Williamson, 2016).

How we acquire such knowledge of possibilities requires an explanation. And, if what I have argued in this paper is correct, a QALC imagination-based approach is not the right explanation.

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