Conceivability and Modal Knowledge

The Epistemic Role of Imagination for a Consistent Account of
Conceivability

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Abstract:

This paper is intended as a critique of the conceivability account of justification for modal knowledge. More specifically, it is intended as a critique of the view that conceivability can serve as the grounds for modal justification if it is defined as imaginability. It focuses primarily on the work of Stephen Yablo (1993), David Chalmers (2002) and Oreste Fiocco (2007) and is meant to explore the arguments and counterarguments for modal rationalism. The paper suggests that imagination fails to achieve its goal as grounds for modal justification because it fails to reliably track possibility and is epistemically unable to make a definite distinction between possible and impossible worlds. The reason for that, however, lies in the utilized notion of possible worlds and not in the faculty of imagination.

Keywords: possible worlds, conceivability, imagination, modal knowledge

1 Introduction

Epistemology has always concerned itself with the way in which we evaluate our beliefs about facts. While our judgments about the actual state of affairs in the world is obviously an important aspect of our experience, an equally important part is played by our judgments concerning what is possible, necessary, and impossible. We are often prone to envision how things could have been or what they can become, given certain circumstances. That is often the case when we are motivated to evoke a change of some kind and in a certain scale. Thus, a significant part of our epistemic evaluation is reserved for modal judgments about possibility and necessity. These types of judgments encompass what we call modal knowledge. Any significant epistemic account of modality needs to provide answers to three basic questions. It needs to explain under what conditions counterfactual propositions attain truth-value. It also needs to explain under what conditions are we justified in our modal beliefs. A third and no less important question lies in the ability of an epistemic theory of modality to provide an explanation for the mechanism behind the formation of the modal beliefs themselves.

As such, we can distinguish three levels of inquiry. There is the semantic question of how we establish communication about possibilities and how do we form counterfactual propositions. On epistemic level, we are interested how our mental and cognitive faculties, and the experience we have about the actual world, affect and justify our beliefs about possibilities. Finally, there is the question of the ontological status of possibilities. Do they exist as independent entities in relation to our actual world, or are they grounded in it?

The question of the truth-value for counterfactuals historically took precedence. Through a line of work, starting with Carnap (1947) and culminating in Hintikka (1957), Kripke (1959), and Lewis (1973), extensional semantics for counterfactual propositions was developed by employing

the concept of a possible world. This semantic succeeded in establishing conditions for truth valuation of the counterfactuals.

The question of justification for counterfactual statements is epistemically equally important, but its answer remains unclear. It has been commonly thought that the justification of modal knowledge relies on conceivability. The ability to conceive the content of a certain counterfactual proposition was taken to *demonstrate* its possibility, thus becoming sufficient condition for its justification. While it might be the case that a significant part of our experience is connected with the evaluation of possibilities, it is not clear what does it mean for a certain possibility to be conceivable. Thus, an account of conceivability is necessary and the prime contestant for such an account is connected with the concept of imagination.

In this paper, arguments will be presented against this account. I will focus on the works of Stephen Yablo (1993) and David Chalmers (2002), inspired by the arguments of Oreste Fiocco (2007), on which I am trying to expand. Similarly to Fiocco, I will argue that imagination is not a sound way of describing conceivability and that it does not play an epistemic role for modal knowledge. While I accept Fiocco's arguments that modal imagination, as an ability to perform certain type of mental operations, fails to provide the subject with epistemic intuition necessary to reliably tracks possibility, I will argue that the reason for this doesn't stem directly from the notion of imagination as a mental faculty, but rather from the fictionalist notion of possible worlds, on which both Yablo and Chalmers rely. This figuralist representational notion fails to provide an epistemically significant distinction between possibility and impossibility in regard to the faculty of imagination.

2 Justification and Modality

Possible world semantics raises important issues regarding the mind-dependence of counterfactual statements. An epistemic account of justification relies on the mechanism by which the subject evaluates evidence - whether this evaluation is achieved entirely within the mental states of the subject (internalism) or relies on factors external to those states (externalism). Feldman and Conee (2001), for example, propose an internalist description of justification by suggesting that a belief is justified if it presents an attitude corresponding to the evidence in the best possible way. Reliabilism, on the other hand, while based on the successfulness of particular cognitive processes, with a high possibility to produce true rather than false beliefs, is an example of an externalist type of justification.

This leads to several problems which will be discussed below. One of them is the problem concerning the causal relationship between the subject and the evidence. Regardless of the external or internal status of the evaluation itself, it might be argued that such a relation is necessary for the validity of justification and that its lack would ultimately lead to the breakdown of validity. This is the requirement for causal access to the truth-makers of our propositions.

2.1 The Role of Causal Relations

Of course, such a line of reasoning might seem unconvincing. Why should we accept that causal relations play a role in justification? There is a delicate distinction in epistemology between the justification of propositions and justification of beliefs. "Belief" can sometimes relate to the content of a proposition or to the content of the mental state itself. Thus, a belief can be described as a *state*, but it can also be described as having *content*. Therefore, there are two

ways to describe relations between beliefs. There might be inferential relation between the content of beliefs, while the corresponding mental states themselves, might be described as causally related.

Based on this we can distinguish different types of justification in relation to the subject. Dirk Koppelberg (1999) makes three such distinctions. There is doxastic justification, in which the subject S possesses the belief that p is actually justified. Personalistic justification, on the other hand, suggests that S is justified in believing that p. Finally, Koppelberg makes a distinction between personalistic justification and person-relative propositional justification. In contrast to personalistic justification, this is an impersonal type of justification in which the propositional content of p is justifiable for a subject S. Rather than demanding from the subject to accept this belief, "it claims that the person for whom it is justifiable would be well advised to adopt it"[1]. It is necessary to understand if there is a case to be made for the importance of causal relation concerning different types of justification. On the other hand, if this role is to be rejected, the argument still must take into consideration this difference.

One of the reasons for rejecting the role of the causal relation in justification is the endorsement of the "equivalence thesis"[2]. According to it, both doxastic and personalistic types of justification are epistemically equal. In other words, S's belief that p is justified, equates to S being justified in believing that p. Keith Lethrer (1990), a proponent of this idea, suggests that admitting a causal factor in justification is "to confuse the *reason* a person has for believing something with the *cause* of his believing it"[3]. While it is true that a belief might have different causes, and that sometimes the reason for believing and its cause might coincide, he argues that there is no causal dependence between them. The evidence justifying the subject's belief may be

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[1] Koppelberg 1999: 448.
[2] Koppelberg 1999: 449
[3] Lehrer 1990: 169, in Koppelberg 1999: 447

acquired after the possession of the belief itself. It can also be the case that the subject's belief is based on a faulty reason, which later getting confirmed by evidence. As such, a belief might be generated by conviction, *while* being justified by the evidence. In such cases, even if there is sufficient evidence justifying the belief, it would not be causally related to the reason underlying the belief itself.

Let's say that S has an extremely strong belief that there is a divine cause for the existence of the universe. Let's assume that the reasons behind this belief are sufficiently strong in order not to get affected by the lack of evidence. However, let's also assume that S is a trained scientist and incidentally finds evidence for his belief. Evidence, which stands to rigorous critical scrutiny and gets accepted by the rest of the scientific community. Now, what is the relationship between the evidence and the belief itself, in terms of its justification? It would seem that the evidence, whatever they may be, doesn't causally sustain the initial belief of S. It was neither strengthened, nor explained by the new evidence, because the lack of thereof was never sufficient to avert its formation in the first place. Perhaps, as a believer, S feels an existential need to believe in a divine origin, generating strong conviction unaffected by the lack of evidence. His belief, while proved to be justified by newfound evidence, is not causally generated and sustained by them. Thus, it can be argued that S possesses justification to believe in a divine cause *and* that his belief in it is justified, while denying a causal relation between the two.

This, however, is not sufficient ground for rejecting the doxastic/personalistic distinction, even in cases such as the one described above. If the justification *for* the belief and the justification *of* the belief are, indeed, equivalent but causally unrelated, then a case such as a possibility that a believer might be justified while the belief itself is not, or vice versa, is not admitted. It is evident that we evaluate two very different things. In one case, we investigate if a certain person is justified to sustain a certain belief, while in the other if the belief itself is justified or not. As such,

it is important to distinguish between the diverse epistemic grounds for a person to sustain certain beliefs and the impersonal grounds for the beliefs themselves. After all, we are not simply interested in the justifiability of S to believe in a divine cause. We are either interested if S is justified in sustaining his belief, *or* if the belief sustained by S is justified. Even if S has *reasons* for believing in p, it can still be argued that he is rationally irresponsible towards his belief, because it is causally separated by the presence or the lack of evidence. As such, S would lack personalistic justification for believing in p. However, it can also be said that S lacks doxastic justification.

Koppelberg makes a compelling distinction between doxastic justification and doxastic rationalization[4]. We can accept S's grounds for believing p if he presents his newfound evidence for it, but that won't give us access to his belief. Even if S makes use of his evidence, this won't relate his actual reasons for sustaining his belief. As such his evidence merely rationalize his belief but doesn't justify it. There should be strong grounds for distinguishing between rationalization and justification. A causal relation between beliefs and evidence makes such distinction possible.

On these grounds, there is also an important distinction to be made between justifiability of a belief and actual justification. To accept the justifiability of S's beliefs we don't need to demand that the evidence causally sustain them, because, as Koppelberg suggests, "the evidence for the mere justifiability of a belief is always compatible with all kinds of different causes for this belief"[5]. However, for his belief to be actually justified, S must present specific evidence in its defense, which is causally related to the reasons for his belief.

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[4] Koppelberg 1999: 452
[5] Koppelberg 1999: 453

Let's examine a case presented by Koppelberg[6]. X is a police investigator, charged with the investigation of a murder. Y is a suspect in this investigation, who also happens to share an intimate relationship with X. Consequently, S deiced not to pursue further investigation of Y and release her from custody. X is immediately reproached by his boss for his actions, but he justifies them by claiming that Y possesses sufficiently strong alibi at the time of death and lacks any motive for killing the victim. He also states that he simply can't believe that Y is capable of such a horrible crime. In this case, we can clearly distinguish between two kinds of justification. There is the legal justification for discontinuing his investigation and there is the epistemic justifiedness of his belief that Y is innocent. Obviously, the connection between the two is important. Is X's position on Y's innocence actually justified, or is it simply rationalized to be so? While these might be compelling evidence for Y's innocence, S's actions might also have been a product of different reasons. It is quite possible that his emotional attachment to Y, and not his justifiable reasons for her innocence, were responsible for his course of action. If that is the case, it can be argued that his evidence was a good reason to rationalize his actions, while lacking any actual epistemic justification, because it was ultimately based on emotional reasons. Thus, without requiring a causal relationship between the reasons for X's belief and the evidence for it, we would not be able to distinguish between the rationalization of a certain belief and its actual justification.

Would this be a sufficient argument for the epistemic necessity of causal relations in justification? If we are to make causal relation to the evidence a necessary condition for justification, we would need to explain how would inference be justified. Inference would be important for the justification of mathematical statements where causal factors for justification would not seem to work. However, as it was already stated above, there is a duality within the

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[6] Koppelberg 1999: 456-457

notion of belief, because beliefs can be described both as mental states and in terms of their content. Koppelberg suggests that this distinction applies to inferential relations as well. They can also be distinguished as propositional structures and psychological processes[7]. For a proper doxastic justification, both the propositional structure, as the contents of beliefs, and the psychological process between the mental states themselves, must be considered. As such, Koppelberg presents two conditions which must be satisfied:

(1) S's belief content p has to be (in an appropriate way) inferentially connected to the justifying belief content q.

(2) S's belief state with content p has to be caused or causally sustained by the belief state which contains the justifying content q.[8]

In this case, an epistemically significant justification for a belief is determined by a form of internal psychological causation between a justifiable belief causally sustaining a justified belief, both contents of which can be expressed as inferentially related.

2.2   Conceivability and Justification

What would be the consequence of this analysis for modal beliefs? Initially, it would seem that a casual condition for the justification of such beliefs is not viable. Counterfactual situations are not causally related to the knowing subject. This is a consequence of the possible world's semantics itself. The truth conditions for Q if:

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[7] Koppelberg 1999: 457
[8] Koppelberg 1999: 458

It is possible that Q.
It is necessary that Q.

are

Q is true in some possible world.
Q is true in all possible worlds.

If the possibility and necessity of counterfactual statements are realized in possible worlds, then, as Lewis (1986) argues, it would be a categorical mistake to perceive them as objects existing within the causally related space-time continuum. They are not like undiscovered lands, which are merely perceptually inaccessible to us, but rather they are casually isolated entities, inaccessible to us in any temporal or spatial sense.

But if that is the case, the immediate question would be how can we know anything about modality, if we don't have causal access to the truth-makers of counterfactual statements? This is where an account of modal rationalism is attempting to answer this question by appeal to the mental faculty of conceivability. Chalmers and Yablo's accounts differ in the ways in which conceivability relates to possibility and justifies our beliefs about it. Yablo is arguing that conceivability provides evidence for possibility. Chalmers, on the other hand, presents a much stronger claim that conceivability entails possibility. Both accounts will be explored further.

An epistemic account of conceivability faces several important challenges. As discussed above, it must provide a solution to the causal isolation problem. In other words, it must explain how the mind-dependent process of conceivability, as a mental faculty, provides justification for our beliefs in mind-independent possibility, which takes the form of causally isolated counterfactual situations. Does the content of our modal and factual knowledge limit our conceivability or is it vice versa? Is it the case that I know of the possibility of unicorns, because I have knowledge of

horses and narwhales, for example? Or is it the case that I can conceive of the possibility of water without oxygen because I lacked the knowledge that oxygen is part of its composition? This leads to the question of the source of modal knowledge. Is conceivability that source, or does modal knowledge depend separately on some other source?

2.3   Modality vs. Counterfactuals

This question relates to the problem of the primacy between modality and the counterfactuals. Modal knowledge is expressed in the form of counterfactual propositions, but does modal knowledge rely on them? Timothy Williamson (2005, 2007a,b) proposes that modal knowledge can be explained entirely in terms of counterfactuals. He argues that there is a form of logical equivalence between metaphysical possibility/necessity and the counterfactual conditionals. This provides an epistemic pathway for counterfactual reasoning in imagination, producing justified believes about modality. An epistemic analysis of modal knowledge, therefore, would be an analysis of counterfactual statements.

If I observe a paper flyer gliding through the air and getting stuck in a tree, I might wonder what would have happened if the tree was not there. In order to answer that question, I might imagine the flyers gliding without the tree to stop its flight and eventually landing on the asphalt pavement. Taking these background conditions under consideration, I would be able to form the counterfactual:

(1) If the tree was not there, the paper glider would have landed on the asphalt pavement.

Now, in the formation of (1), I would be able to use the entire array of available background beliefs, within the scope of the supposition, as a description of my actual circumstances, in order to compare them to the counterfactual circumstances. As Williamson suggests, some, but of course not all, of those background beliefs would be available as a description of the counterfactual situation, within that scope. This will provide the ability to explore the counterfactual consequences of the initial supposition. I would be able to assert the counterfactual conditional if, by developing the antecedent in the comparison of my background beliefs, I would eventually be able to add the consequent. If the counterfactual development of the supposition does not yield contradictions, one would arrive at the modal claim itself:

(2) It is possible for the paper glider to have landed on the asphalt pavement.

One of the most important goals of Williamson's account is to argue against modal rationalism, such as the one proposed by Chalmers and Yablo. If modal knowledge can be explained as knowledge of counterfactuals, there would be no need to argue for some special faculty which provides us with a priori justification for modal propositions. However, as Malmgren (2011: 307) suggests, even if it is true that modal knowledge is equivalent to knowledge of counterfactuals, that statements, by itself, does not prove that there is no such special faculty.

More importantly, however, Williamson still takes imagination to be a general capacity to handle counterfactuals. It provides the means and the limits for the development of the modal propositions through counterfactual reasoning. As Williamson suggests that "our fallible imaginative evaluation of counterfactuals has a conceivability test for possibility"[9]. But the epistemic status of imagination is far from trivial, regardless if it is taken to be the faculty for

[9] Williamson 2007b: 163

modal justification or simply a capacity to handle counterfactuals. Williamson doesn't provide an explanation for the way in which counterfactual imagination actually works. He also doesn't provide conditions by which we could judge the fallibility or the success of the process of counterfactual imagining itself.

We are generally prone to imagine certain counterfactual situations at the expense of others. It would seem more likely that someone watching a paper glider in the air, would imagine how the glider, instead of hitting the tree, would fall on the ground, rather than go back and land directly on the hand of the one who threw it in the air. But why are we prone to imagine certain sequences of events and states of affairs rather than others? More importantly, what epistemic relevance does the apparent directedness of our imagination holds? These are important questions, not easily answered if the answers are based on a notion of imagination as the mere ability to handle counterfactuals.

Williamson's goal is to argue against the need for a special a-priori faculty for justifying counterfactual statements. While I disagree with his epistemic trivialization of imagination, his ultimate goal is not necessarily to argue against the existence of such faculty but against its role in the acquisition of modal knowledge. However, by describing imagination simply as the capacity to manipulate with counterfactuals, it seems to me that Williamson violates the previously discussed distinction between beliefs as mental states and their content. By reducing modal knowledge to the knowledge of counterfactual propositions, he also reduces the epistemic relevance of the relations between beliefs solely to the level of their content. As such, only the propositional content of the modal believes would be relevant, ignoring their psychological characteristics. But if this is the case, the distinction between doxastic rationalization and authentic doxastic justification would fail.

Williamson also recognizes that a counterfactual account for modal knowledge would need to capture metaphysical modality, but while his account seems to hold for modal claims typical for our everyday experience, it is less certain for more extreme cases of such modal claims. Can such an account of modality provide us, for example, with modal knowledge for the possibility of human counterparts lacking any phenomenal conscious experience?[10]

Let's examine it a bit more closely. Williamson's argument for knowledge of metaphysical modality has two stages. First, he makes the pragmatic claim, that skepticism involving knowledge about counterfactuals is not useful, because they play important role in human activities, such as in decision-making, or in the construction of scientific hypotheses. Next, he claims that metaphysical modality, just as any other type of modality, is reducible and logically equivalent to counterfactual conditionals. As such, since it is implausible to deny the ability to handle counterfactuals, it would also be implausible to deny the capacity to handle metaphysical modality. What generates the sense of implausibility of metaphysical modality, according to Williamson, is the philosophical appeal to intuition, as the source for its justification. For him, this is a failure to see the wider context in which we are thinking about this type of modality. He argues that "the ordinary cognitive capacity to handle counterfactual conditionals carries with it the cognitive capacity to handle metaphysical modality"[11]. This "handling" of modality lies in the ability to produce a counterfactual development for the antecedent of the proposition, in comparison to the other background beliefs of the subject.

As Dominic Gregory (2017) suggests, Williamson would argue that a tendency to deny a counterfactual conditional, as a consequence derived from the failure to get robustly to the

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[10] Chalmers (1996) uses this imagined possibility to argue against a physicalist account of consciousness, which would require a justification for his modal knowledge of this possibility in the first place. Since the mind experiment is a widely accepted philosophical practice, which relies on modal knowledge, an account of the justification of modal statements would be important for the justification of philosophical arguments which rely on modality. Chalmers claims coherency to be a condition for their justification, as discussed further in the paper.

[11] Williamson 2007b: 136

consequent, after the adequate development of the supposition, "will reliably but not infallibly lead us to true beliefs"[12]. This would be the case, because the development of the initial supposition, in the course of the subject's counterfactual reasoning, would tend to be molded by the multiplicity of factors that would interact with the supposition, thus yielding their specific counterfactual consequence.[13] However, just because there are generally trustworthy pathways for counterfactual analysis doesn't justify the trust behind the philosophical reflection on metaphysical modality, in connections to our epistemic confidence. Williamson's claim that the ascription of metaphysical possibility shares the same reliability as the "standard process for arriving at denials of counterfactual conditionals"[14], requires a certain argumentative background, detailing the relationship between the grounds of modal truth and our epistemic capacities to assess them.

As such, the question of conceivability, taken to be a central epistemic capacity for modal knowledge, is important and unavoidable. Both Chalmers and Yablo are attempting to provide a theory of modal conceivability. They defend the epistemic status of imagination in order to provide an account for conceivability as the basis for a-priori justification of modal knowledge. I will argue, however, that imagination fails to provide such an account, based on the notion of possible worlds on which they rely.

2.4   Accounts of Conceivability

Imagination is taken to provide a viable alternative to other, rather more problematic, accounts of conceivability. One such account relies on the idea that conceivability is related to

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[12] Gregory 2017: 827
[13] Ibid.
[14] Gregory 2017: 829

understanding. If conceivability is taken to be the same as understandability, and understanding is taken to function only on a linguistic level, then the theory seems to face a problem. A sentence in which I say that zero is bigger than one is understandable as a sentence, but it is clearly not logically possible. As such, we are faced with the problem that a subject can linguistically understand contradictory statements[15], without being impaired by their logical possibility or impossibility. Even more importantly, a subject can understand logically consistent statements without any consideration for their metaphysical possibility. One of the main issues for every theory explaining possibility through an account of conceivability is the clarification of the relationship between logical and metaphysical possibility. Metaphysical possibility might entail logical possibility, but it is not at all clear if logical possibility entails metaphysical possibility.

We can limit the definition of understanding, as Maxiner (2006) suggests. Let's take "understandable" to mean only "really graspable as an ontic possibility"[16]. Maxiner is using the term "ontic possibility" synonymously with "metaphysical possibility". He, however, distinguishes between metaphysical, epistemic, and logical possibility, while considering them all types of alethic possibility.[17] He holds a position, which I interpret as similar to Williamson, that propositions take primacy in relation to modality, because "propositions are constructions out of states of affairs"[18]. In that case, every state of affairs, which is propositionally graspable as a metaphysical possibility, **is** metaphysically possible by definition. However, Maxiner then asks whether such a limitation on the definition is useful. He argues that this is not the case, because it produces a fallacy of begging the question. If we take the premise that certain state of affairs is conceivable (in the sense of graspable as an ontic possibility), as an argument, its purpose is to

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[15] I make a distinction between propositions and statements based on their possession of truth-value. Propositions are type of statements which have truth-values, but some statements, like the ones containing contradictions, don't possess such.
[16] Maxiner 2006: 43
[17] Maxiner 2006: Note 13
[18] Maxiner 2006: 109

epistemically support the conclusion that the state of affairs in question is, in fact, metaphysically possible. The premise of the argument assumes the truth of the conclusion, hence the fallacy.[19]

Limiting the definition doesn't by itself establish that conceivability, interpreted as understandability, entails possibility. Understanding, as employed by this account, is limited to propositions. As discussed above, if we limit modal beliefs to their content, while disregarding their psychological aspect, we fall into the trap of confusing rationalization with justification. Consequently, we fail to adequately relate the subject's modal belief to possibilities, thus failing to justify his claim of modal knowledge.

Alternatively, conceivability can be framed in terms of believability, but this also faces serious problems. As Yablo suggests, "conceivable propositions need not be believable, and believable propositions need not be conceivable"[20]. If I am in a state of misery and pain, I might be prompted by the circumstances to say that I shouldn't have been born at all. I would find my belief, that I should never have existed, entirely conceivable. However, I wouldn't be able to find it believable, that I never have existed. If believability is, indeed, entailed by conceivability, then how would a subject be able to conceive of something as a possibility, if he can't believe it to be the case? The opposite direction is also questionable. Let's say that a parent S is doubting his genetic relatedness to his child and finds it believable, before making a DNA test, that he might or might not be the father. Does that mean that he finds it apparent and conceivable that the child's genetic lineage is metaphysically contingent? Yablo suggests that for believability to entail conceivability, it must bring the appearance of conceivability in a "compulsory" manner.[21] Something which is not the case for the above example.

Fiocco suggests that an attempt can be made to strengthen both accounts of conceivability by proposing that for a certain proposition p to be conceivable, it is necessary to either understand or believe, not only in the proposition p itself but also in all propositions contextually related to p. As such, "in order for a proposition, p, to be conceivable, one must be able to entertain p in the sense of being able to consider it (that is, understand or believe it) in the wider context provided by all those propositions it entails"[22]. He suggests that this leads to a vicious circle, by demanding prior modal knowledge and the ability to conceive of every contextually related proposition in order to conceive of a single one.[23] Also, this can be interpreted as a repetition of Williamson's previous move of using an array of reliable background beliefs in the counterfactual analysis. If the beliefs, contextually related to p, are also about possibilities, then it would seem that this is a repeated case for the fallacy of begging the question. If other counterfactual propositions are taken under consideration in order to justify p, it would mean that I have somehow magically acquired prior modal knowledge of p, establishing what p entails and how it is entailed by other propositions. If, however, as it is the case with Williamson, the contextually related beliefs are independently justified, then, again, we fall into the trap of considering modal beliefs only in terms of their content.

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[22] Fiocco 2007: 366
[23] Ibid.

3 Imagination as the Basis of Conceivability

In a certain sense, to consider conceivability in terms of imaginability is an elegant solution, because it provides both an account for conceivability and an explanatory psychological mechanism behind the formation of the modal beliefs themselves. As such, imagination can function as the needed bridge between doxastic and personalistic justification, in the preservation of both the mental and the propositional aspect of belief. But how exactly does imagination justify our modal beliefs and what makes the account of conceivability through imagination, an insightful and not just a convenient one?

The answers to these questions would, of course, depend on how we define imagination. Fiocco proposes that the classical and most intuitive way to think about imagination is as a voluntary cognitive faculty, which provides the ability to form mental images of objects, states, and relations.[24] By this definition, for something to be imaginable means that we are capable to form a mental image representation of it. Therefore, according to Fiocco, if we initially accept that conceivability is imaginability, then a proposition p is conceivable if and only if we are capable of forming a mental image of its content.[25] Thus, the act of forming the mental image of p is what demonstrates its possibility. In this case, for S to obtain modal knowledge of p, it is necessary that he can demonstrate p, by forming a mental representation of its content.

This notion of imagination, however, is problematic and doesn't seem to be epistemically sufficient for justifying modal beliefs. Fiocco presents an important objection made by Paul Tidman (1994), that there seem to be many states of affairs, counterfactual or otherwise, that are

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[24] Ibid.
[25] Ibid.

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unimaginable if we take imagination to be limited to the notion of mental representation.[26] Ironically, philosophy provides the best example of this criticism. It doesn't seem to be possible for us to form mental representations of omnipotent, omniscient and supremely good entity such as God, or of entities such as the monads of Leibniz and the Aristotle's Unmoved Mover. It would be equally impossible to possess a mental image of iron having (or not) an atomic number of 118, or electrons without(or with) charge and mass. Such entities are unimaginable for the simple reason that we can't form mental images of them and, as Tidman suggests, "our inability to picture such states of affairs should not lead us to draw any conclusions concerning their possibility"[27]. Even if we accept that these examples can be represented propositionally, they can't be image representations. In that case, if the states of affairs concerning these types of entities are not imaginable, then the propositions which represent them are not conceivable by definition. Thus, the modal knowledge about metaphysical possibilities is rendered inconsistent with the account of justification for modal knowledge, based on conceivability as imaginability.

Perhaps, an image representationalist might argue that images don't need to correspond perfectly to what they represent in order to epistemically count as successful representations. For example, when a person forms a statement involving God, he might imagine an old white-bearded man, sitting on a cloud. If we assume that he was forming counterfactual propositions with theological content, the fact that the mental representation and the content of her propositions don't overlap means that there is no epistemic relation between them. This is why the relevant question here is what epistemically counts as an image, following Tidman's question about "what

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[26] Fiocco 2007: 367
[27] Tidman 1994: 299

counts as an image of a state of affairs?[28] For example, it is not sufficient to claim modal knowledge about counterfactual statements depicting "Pi" as a natural number, just by imagining a state of affairs in which a mathematician is writing something on a blackboard. If indeed there is no relation between the propositional and mental content, the grounds for justification are lost. If that is the case, then an epistemic theory of model knowledge is not consistent with an account of conceivability based on image representation. Yablo and Chalmers, as interpreted by Fiocco, are trying to overcome this obstacle, by providing more sophisticated notions of modal imagination, beyond the simple production of image representations.

3.1 Yablo's Notion of Imagination

Stephen Yablo (1993) presents probably the most explicit account of conceivability by employing the concept of imagination as its basis. Yablo is very interesting because his account seems to escape from the argument made by Tidman, as represented above, by employing an account of imagination, based on a rather particular notion of a possible world. This has the potential to unite the question of justification for modal knowledge with the possible-world semantics, which already plays a significant role regarding the truth conditions for modality. For Yablo, the conceivability of a counterfactual proposition is dependent on the ability of the subject to imagine a world in which p would be true, were it the case. As he amply puts it:

conceiving that p is a way of imagining that p; it is imagining that p by imagining a world of which p is held to be a true description.[29]

[28] Ibid.
[29] Yablo 1993: 29

Thus, for a proposition such as "If the paper flyer did not hit the tree, it would fall on the ground" to be conceivable, the subject must imagine a world in which, were this world the actual state of affairs, the proposition would be true. For Yablo, a possible world has an epistemic role by verifying a counterfactual proposition p in virtue of making it appear to be possible. This is how conceivability gains its epistemic function. Conceivability "invokes the appearance of possibility"[30], through imagining a possible world facilitating that appearance. Thus, for such a world to verify p means that "if a world like that had existed, then p would have been the case"[31].

Yablo argues for this by making a distinction between two separate notions of imagination. According to him, imagination can be either propositional or objectual.[32] Propositional imagination consists is the ability to imagine a state of affairs, while objectual imagination relies on the ability to construct a mental image of the object and its properties. Fiocco proposes that, for Yablo, only propositional imagining has alethic content, which can be true or false, while objectual imagination has a referential content that purports to depict an object.[33]

The type of imagining, which is relevant for conceivability within Yablo's account, is the objectual imagining. He suggests, however, that there are two ways in which it can be employed. One way is for an object to be imagined as being determinate. In this case, it "possesses for each of its determinable properties an underlying determinat"[34]. That means imagining an object with a set of first-order properties. For example, to imagine a turtle as being determinate is to imagine it only as having the determinate qualities generally associated with its appearance (such as having an external bony shell). On the other hand, an object can be determinately imagined. This would require that its second-order properties to be specified – like imagining a turtle, with

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[30] Yablo 1993: 30
[31] Ibid.
[32] Yablo 1993: 27
[33] Fiocco 2007: 369.
[34] Yablo 1993: 28

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properties of its shell distinguishing it as Leatherback sea turtle. Yablo stresses the difference between these two modes of objectual imagining. As he suggests, "there is a world of difference, between imagining an object as determinate - as possessing determinates for each of its determinables - and determinately imagining it - specifying in each case what the underlying determinate is"[35]. To imagine determinately is, clearly, extremely demanding from an epistemic and cognitive perspective. However, Yablo suggests that the epistemic status of imagination stems from the ability to "imagine more or less a determinate situations"[36], which verify counterfactual propositions. Yablo relates these imagined possible situations to the notion of possible worlds, by suggesting that possible worlds are "complete" imagined situations.[37]

Yablo's account seems to rely on three basic notions. One is, of course, the notion of imagination, but the other two are the notion of a possible world and verification. I will examine more closely these three notions and their relationship in Yablo's framework.

What account of a possible world is utilized by Yablo? He envisions possible worlds to be representations of what the actual world could be, which are "complete in every respect: spatially, temporally, and ontologically"[38]. This is also how Fiocco interprets Yablo and it would seem that this is indeed the way in which he uses the notion as related to the problem of conceivability[39]. As already discussed, the conceivability of a possible world evokes the appearance of p's possibility, thus verifying its content as true within that possible world. Thus,

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[35] Ibid.

[36] Yablo 1993: 27

[37] Yablo 1993: 28

[38] Yablo 1993: 26

[39] Similarily to Fiocco, I take Yablo to hold a representationalist notion of possible worlds, However, I disagree with Fiocco's interpretation of them as "abstract entites" (see Fiocco 2007: 368). Yablo has much more nuanced fictionalist account, taking possible worlds to represent make-believe games, rather than abstract entites per say. This will be explored further in other section of the text.

as Fiocco suggests, a proposition, taken as the "object of belief", is verified if the possible world *represents* the state of affairs as it is within the proposition.[40]

This representationalist view has consequences for the way in which Yablo makes a distinction between a possible world and a situation, regarding imagination. While he suggests that we imagine situations as determinate, he denies that we are ever imagining them as complete. Completeness does not follow from determinacy. While I can imagine a situation in which a paper flyer lands on the pavement as determinate by a specific set of relational and qualitative properties, I can only imagine it as a *part* of some complete context. I can only acknowledge this larger context, without imagining it in a determinate manner. Possible worlds are imagined as *additions* to the determined situations being conceived, as containing those situations and thus verifying them within their context. For a proposition to be conceivable, it only requires the ability to imagine a determinate object, or a set of determinate objects, as being "embedded" within a specific possible world, demonstrating its possibility. With this Yablo is attempting to make the needed epistemically significant distinction between conceivability and inconceivability of modal claims. For p to be conceivable means that S is able to imagine a determinate situation containing p, within a world which would verify it, were it actually the case. For p to be inconceivable would mean that this situation cannot be imagined within a world which doesn't falsify p.

Let's take that p is the proposition that Donald Trump is a star (in the astronomical sense of the word). Now, one would suppose that p is inconceivable since I am unable to imagine a determinant situation in which the properties of Donald Trump and the stellar objects overlap, but still, I *could* imagine a world which doesn't falsify p – I can imagine a world in which p doesn't exist. What does it mean for a world to verify or falsify p, in this case? Is "falsify" really equal to

[40] Fiocco 2007: 369

"not able to verify"? That would seem to be the case for Yablo since he stipulates that for something like p to be inconceivable, *any* world I could imagine would be a world, which does not verify the proposition that Donald Trump is a star. In this case, p would be false and the belief about p would be inconsistent with every possible world. But, "if p is believable, then the *actual* world might for all I know be a p-world. So, I am unlikely to have it appear to me that p cannot be true in any possible world"[41]. If that is the case for something to be "unimaginable", it would mean simply that I am unable to imagine it with determinate overlapping properties, within a context for which they would make sense. That is why "tigers with round-square striping are not imaginable; neither can we imagine tigers that lick all and only tigers that do not lick themselves, or tigers with more salt in their stomachs than sodium chloride."[42] Even if I would be able to build counterfactual statements about them, they would not be epistemically possible.

Would this mean that for the possibility of imagining an object, it is required to imagine it as existing? Its apparent existential status doesn't seem to be prior to the act of imagining it. We don't imagine objects *because* it appears that they can exist. This impression is not a prerequisite for imagination. It is only by learning how to imagine something that we admit its possibility. This is why it is important for Yablo that the imagining of a world involves the appearance that such a world could be actual. But when a world confirms limited imagined situation "c", this means that, had such a world been actual, then "c" would be the case. Thus, imagining a world, which verifies the possibility of "c" means that "c" *appears* possible in it.

But how can we epistemically judge the clarity for such appearance and how is it connected to perception? As suggested by Fiocco, the classical notion of imagination involves a voluntary

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[41] Yablo 1993: 11
[42] Yablo 1993: 30

process by which the subject creates mental images of objects and states of affairs.[43] However, according to Yablo, to imagine a determinate object doesn't imply the ability to call in one's mind a sensory image of that object. Fiocco is clearly aware of this because he quotes Yablo on this: "I do not require a sensory-like image for imagining, and certainly not a distinct such image for distinct imaginings"[44]. However, he argues that this is a negative characterization of imagination and thus, Yablo does not provide a positive explanation of how imagination actually provides epistemic grounds for conceivability.[45] Similarly to Williamson, who takes the process of imagining as something epistemically unproblematic in itself, Yablo doesn't provide a clear explanation of how imagination actually works.

3.2   Chalmers Account of Imagination

Is it still possible to give a positive account of imagination without reducing it to the production of sensory images? David Chalmers (2002) is attempting to provide such an account by presenting the notion of "modal imagination".

Similarly to Yablo, Chalmers accepts that something is conceivable prima facie. This means that, after consideration, the subject would be able to directly evaluate a situation S as conceivable under certain conditions. These conditions depend on the accepted notion of conceivability. According to Chalmers, conceivability can be viewed as being positive and negative. The only condition for negative conceivability is taken to be coherency, or "the lack (apparent) contradiction" [46]. Thus, negative conceivability holds when the formed propositions by

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[43] Fiocco 2007: 366
[44] Yablo 1993: Note 55, in Fiocco 2007: 370
[45] Fiocco 2007: 370
[46] Chalmers 2002: 147

the subject are not ruled out a-priori or by contradiction. Chalmers speaks of this as an ideal notion of conceivability.[47] Modal belief produced by it is a result of an ideal rational process. For it to be ideally conceivable means that there is no contradiction in the hypothesis expressed by it. If it is not, then either such contradiction has been detected, or its negation is not a-priory. There is a distinction between conceivability prima-facie and ideal conceivability made by Chalmers. Prima-facie conceivability is a form of reasoning that can be doubted a priori in contrast with ideal conceivability. He takes mathematical statements to be a good example of this difference. There are such mathematical statements, which truth-value is presently unknown, but will be proven in the future. They can be viewed as prima-facie negatively conceivable for the current subjects, possessing mathematical knowledge, but not as ideally conceivable, because under reflection their negation would not be ruled out a-priori. If the hypothesis, made by the statement is ideally conceivable, it would be a product of reasoning, unconstrained by contingent cognitive limitations, which could not be a-priori refutable.

Alternatively, Chalmers proposes that a proposition is ideally conceivable if its justification is undefeatable by a better form of reasoning, although he doesn't give a clear characterization of what would count as good reasoning.[48] He rejects, however, the idea that better reasoning, in the case of counterfactual statements, means better tracking of possibilities, believing that, if conceivability is defined entirely in terms of possibility, it would be trivialized.

Chalmers also proposes a positive account of conceivability, which is based on the formation of a "positive conception of a situation"[49]. Thus, "to positively conceive of a situation is to imagine (in some sense) a specific configuration of objects and properties"[50]. It is important to

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[47] Ibid.
[48] Chalmers 2002: 148
[49] Chalmers 2002: 150
[50] Ibid.

recognize that Chalmers explains this along the same lines as Yablo because the imagined situation is also taken to be the basis of the validity of the counterfactual proposition. As Chalmers puts it:

we can say that S is positively conceivable when one can imagine that S: that is, when one can imagine a situation that *verifies* S.[51]

Thus, positive conceivability is directly tied with imagination. To positively conceive of a situation would mean that the subject imagines objects, or sets of objects, possessing specific qualitative and relational properties. Similarly to Yablo, Chalmers proposes that a situation is conceivable when it verifies the content of the modal proposition, in the act of its imagining.

However, a significant difference from Yablo can be found in Chalmers introduction of modal imagination, which he distinguishes from perceptual imagination, because "different notions of conceivability correspond to different notions of imagination"[52]. Perceptual imagining is discussed similarly to Yablo. It is expressed not only as an attitude towards the content of the proposition but also towards a situation related to it. I imagine flying cars by constructing a mental image, representing a specific situation, which allows and, by this, verifies such configuration. Situations transmit the objectual character of the objects contained within them. Chalmers proposes that this character is not transmitted only through image representations. The subject is capable to imagine situations, which are on principle, not perceptually distinctive, such as the French Revolution or the decaying atoms of Plutonium. An interesting example would be the comparison between two scientific theories, which describe the same situation by making the same empirical predictions. In these situations, we don't seem to form (or at least not

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[51] Ibid.
[52] Ibid.

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distinctively form) perceptual images that represent those situations. However, Chalmers argues that the objectual character, contained in these situations, is transmitted in the act of imagining as an intuition of a world, in which a rough configuration of the situation takes place.

Chalmers distinguishes this type of imagining, calling it modal imagination. While perceptual imagination relies on perceptual mental images of objects, modal imagination relies on the ability to imagine possible worlds, or possible situations, in which certain objects or events, not representable by perceptual images, occur or exist. In other words, in order to modally imagine p the subject imagens a world or a situation that verifies p. Modal imagination relies on intuitions about certain types of configuration between objects and properties within a world, which satisfies certain descriptions. The subject possesses positive intuitions for such configurations. If, for example, I want to modally imagine Plutonium as not experiencing atomic decay, I might imagine arrangements of spherical particles that stay the same over long periods of time. When I reflect on the imagined structures of particles, which I associate with Plutonium, they reveal themselves as parts of worlds in which there is a non-decaying Plutonium.

The scope of modal imagination goes beyond entertaining modal propositions, which describe certain counterfactual situations. There are propositions for which we lack sufficient intuition in order to modally imagine them with ease. Unknown and still unverified propositions, in the realm of theoretical physics and mathematics, are examples. Thus, "imagining a world is not merely entertaining a description"[53]. In this case, it is not epistemically relevant for imagination to present evidence, because there is no detail within a counterfactual description S, which would provide evidence against the conceivability of ~S. Therefore, verification is not a relation to evidence in the case of modal claims. Imagining flying cars does not entail the existence of imagined flying cars. Chalmers still suggests that our ability to imagine a certain context, as a

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[53] Chalmers 2002: 152

possible world, produces epistemically significant counterfactual statements. That epistemic significance relies on the coherency of modal imagination. A modal statement would be justified as conceivable if the subject is able to coherently modally imagine a world which verifies it. Such a world reveals itself as coherent if the addition of arbitrary details does not lead to a contradiction. Thus, "true coherence requires that arbitrary details can be filled in with no contradiction revealing itself"[54].

Chalmers suggests that thought experiments are good examples of such a requirement.[55] Their effectiveness does not depend on complete detailed descriptions. Instead, it is required from the subject to imagine the only the important features of the situation which verify the modal statement. If better reasoning shows that additional details can't coherently be integrated and that they don't verify the intended statement, then it is generally taken that the experiment fails in its intent. If the subject, however, succeeds in prima facie conceiving a situation that verifies the statement and not be defeated by incoherency, then the experiment is successful, and the statement is proven to be positively conceivable. Situations containing logically impossible objects and related properties might be deceptively conceivable prima facie, but not ideally conceivable in a positive way because they cannot be coherently imagined. In some cases, this might be obvious from the beginning, but some might require reflection.

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[54] Chalmers 2002: 153
[55] Chalmers 2002: 153-154

4 The Role of Possible Worlds in Modal Imagination

Both in the case of Chalmers and Yablo, the notion of a possible world is presented as an essential aspect of the process of justification through conceivability. Thus, the relationship between the notion of possible worlds and imaginability must be studied more closely. Until now, the main critique of the account of conceivability as imaginability was concerned with the problematic relation between the metaphysical possibility and the perceptual image necessary for imagination. By removing the perceptual image from the notion of imagination, it would seem that these arguments are arguably successfully deflected. But while both Yablo and by extension Chalmers rely on the notion of possible worlds as representations, it is still not clear how are they representations and of what.

Quine famously states that the true test of ontological commitment lies in the ability of the theory to assume only the entities to which the bounded variables of the theory refer to.[56] By proposing that every description of a way things could is a way a world is, David Lewis took up this challenge, by suggesting that it is not the case that ordinary language *refers* to ways, but rather that it *quantifies* over ways. These "ways", the possible worlds of the modal realism advocated by Lewis, are defined as maximally interrelated networks of individuals(worldmates), forming spatiotemporal isolated wholes. By suggesting that possible worlds are causally and temporally complete, it would seem that Yablo is adhering to a similar realist position as Lewis, who takes possible worlds to be spatiotemporal in nature. But their role as representations suggests something different.

To understand Yablo's position, we need to analyze his account of mathematics. Yablo (2001) has a rather peculiar fictionalist take on mathematical entities, which he calls figuralism. As a

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[56] Quine 1948: 33

fictionalist, he rejects their independent ontological status and adheres to the idea of them being merely fictional in nature. Yablo achieves this by proposing that the language of mathematics is a form of figurative speech lacking a literal expression. As such, mathematical claims function only as metaphors.

Sarah Hoffman (2006) argues that Yablo is using some elements of Kendall Walton's (1990, 1993) account of fiction as a form of pretense. According to Yablo and Walton, fictional discourse is similar to a game. More specifically, a form of a *make-believe game* based on pretense and imagining. Works of fiction are the stage on which these make-believe games are developed, deployed, and played out. They provide the tools and the language necessary for the game. As such, they establish certain objects, properties, and relations as fictional. As Hoffman suggests, "works of fiction are props in games of make-believe; their function is to operate in those games to make certain things fictional"[57]. A work of fiction, such as Harry Potter, for example, makes it possible, within a fictional setting, that broomsticks are capable to fly in the air at high speeds. However, for flying broomsticks to be considered a form of fiction, it is necessary that for all authorized games of make-believe, which are associated with Harry Potter, it is established that broomsticks are to be imagined as flying. As such, a form of communal agreement on the properties of the fictional entities is created. Once established, those properties underly the rules of engagement. While participating within a game of make-believe, the subject is authorized to pretend that the actual state of affairs is as if there actually were flying broomsticks. Thus, an account can be provided for all things which S can say about the fiction, without affirmation for the existence of the fictional entities themselves.

This provides the ability to describe the different attitudes that S can have towards the fiction. As a participant in the game of make-believe, S would engage with the fiction in different ways.

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[57] Hoffman (2006): 2

Hoffman argues that Walton presents the conceptual resources to distinguish and explain these different stances.[58] Sometimes S would be entirely engaged with the pretense, sometimes he would be interested solely in its content, or he would disregard that content entirely and focus on the way in which the work of fiction generates it. Hoffman presents Walton's close examination of the distinction between the make-believe game and the prop generating it. He argues that this provides an understanding of the way in which metaphors work. According to Walton, the framing effect produced by the metaphor, which directs us to understand one thing in terms of another, is "consisting in the metaphor's implication or introduction or reminder of a game of make-believe"[59]. Similarly, Yablo states that a metaphor "is an utterance that represents its objects as being… the way that they need to be to make the utterance 'correct' in a game that it itself suggests"[60].

Hoffman presents the following proposition as an example:

Talking to philosophers wakes up the butterflies in my stomach.[61]

Of course, the invoked "stomach butterflies" are purely metaphorical entities. They function as nothing more than representational tools for the non-literal expression of the actual content. Being inspired by Walton, Yablo is attempting to provide a figuralist take on the fictionalist account of mathematics. In this case, mathematical objects also function as "representational aids"[62]. As such, the proper interpretation for the content of a sentence such as "The number of

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[58] Ibid.
[59] Walton 1993: 75, in Hoffman 2006: Note 1
[60] Yablo 2005: 98, in Hoffman 2006: 3
[61] Hoffman 2006: 3
[62] Ibid.

planets in our solar system is 9" is "There are 9 planets in our solar system".[63] For this to be true, there is no reason for appealing to the existence of a mathematical object, in this case, the number 9, any more than there is a reason for me to invoke the existence of insects, living inside my stomach (an admittedly horrifying thought).

Yablo argues that other mathematical metaphors can be introduced by already previously established ones. As Hoffman suggests, numbers can be both represented objects and representational aids in their own right.[64] Yablo himself suggests that in order to "express the infinitely many facts in finite compass, we bring in numbers as representational aids"[65]. The same is applicable for the entire array of mathematical objects, even if parallel games of make-believe must be admitted to represent facts about those mathematical objects which we already accepted as represented objects.

More importantly, the figuralist form of fictionalism, supported by Yablo, is not limited to mathematics. It is also presented as an account for possible worlds. Of course, the idea of a "world metaphor" is not new, but Yablo suggests that its popularity was previously diminished by the discussion about ontological commitment and the lack of explanation of how possible worlds function as metaphors. [66]

Yablo suggests that by accepting to talk about possible worlds as fictional, we also accept the ability to pretend and imagine them as being true, for "wherever there is a disciplined pretense of imagination, there is something that can be considered a *game of make-believe* "[67]. As already discussed, different types of fiction actively engage with the subject in a certain way. They establish the rules for imagining them differently, based on the form of their representation and

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[63] Yablo 2001: 23
[64] Hoffman 2006: 3
[65] Yablo 2005: 94
[66] Yablo 1996: ch. 15
[67] Yablo 1996: 277

the intent of their creators. Thus, "the factor that links all make-believe games together is that they call upon their participants to pretend or imagine that certain things are the case. These to-be-imagined items make up the game's *content*, and to elaborate and adapt to this content is often the game's very point"[68].

This is the reason why Yablo argues that possible worlds are representations. Being fictions, they function as metaphors, prompting the subject to engage in a make-believe game concerning their content. As such, according to Yablo, a metaphor "is an utterance U that portrays its subject as of a kind to make U pretense-worthy in a game that U itself suggests… to make clear *which* game-independent properties are being attributed; they are the ones that do or would confer legitimacy upon the utterance construed as a move in the game"[69]. If I say, for example, that there are worlds in which Donald Trump is not the president of the US, then I would be suggesting a game in which the subject pretends that something like this, which could happen in the actual world, *does* happen in some other imagined world. It marks the utterance as pretense-worthy within a make-believe game. As such, metaphors are not merely conceived abstract entities, as interpreted by Fiocco[70], but also aspects of linguistic practice.

Hoffman presents several critiques for Yablo's figuralist account, which concerns its applicability to describe the actual mathematical practice. One of those belongs to Burgess (2004) who argues that it is "very doubtful… whether mathematicians who assert that there are prime numbers greater than $10^{10^{10}}$ intend their assertion only as something non-literal"[71]. Burgess argues that literal and non-literal speech are not equivalent, because invoking a non-literal talk about something requires an additional mental attitude than invoking it literally. He claims that:

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[68] Yablo 1996: 278
[69] Yablo 1996: 279
[70] See footnote 36
[71] Burgess 2004: 26, in Hoffman 2006: 4

"[o]ne doesn't have to think anything extra in order to speak literally: One has to think something extra in order to speak non-literally"[72]. Now, Hoffman criticizes this strike distinction between literal and non-literal use of language as unattainable, because language is constantly changing through the introduction of metaphors. As such, "deviant uses start out as metaphors, some are dropped, some continue as metaphors and some become new literal meanings"[73]. This facilitates the constant flow and change within language, because "new meanings get introduced through metaphorical extension—this year's metaphor becomes next year's literal truth"[74].

The relevant question then concerns the connection between this fictionalist notion of a possible world as metaphors and modal imagination. Unlike Williamson, both Yablo and Chalmers propose that imagination is the mental faculty producing a-priory knowledge for metaphysical possibility, thus becoming the source of modal knowledge. This is where we are faced with a serious problem for the question of justification. As seen thus far, both Yablo and Chalmers intimately connect modal conceivability with verification within possible worlds. But how can we be certain that if a given possible world was the actual case, the proposition would also be true? How can we be sure that a *certain* possible world verifies a *specific* proposition? Verification, in this sense, would mean nothing more than the coherence between the modal belief of the subject and the content of the metaphor, used to invoke a pretense on part of the believer.

Yet, Yablo suggests that, besides conceivable and inconceivable, counterfactual situations can also be undecidable.[75] This means that, in order to conceive of certain determinate situation, it would be required to imagine worlds for which it is not clear whether they verify this situation or

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[72] Ibid.
[73] Ibid.
[74] Hoffman 2006: 9
[75] Yablo 1993: ch. 11

falsify it. Yablo presents the non-GC example from Michael Hooker as an instance of an undecidable proposition: a computer engineer in a possible world creates a computer that generates a number convincing all the mathematicians to be a counterexample of Goldbach's conjecture.[76] Yablo speculates that the suggested world won't verify this proposition, because it would also be verified by a world in which there is no alternative to the conjecture, but the whole mathematical community was misled by the number, which the computer presented.[77]

This example falls short of presenting modal knowledge of non-GC, because the fictional world in which the supposed non-GC is generated doesn't need to verify it, *specifically*, but only something that *appears* to be it. If my imagining non-GC is to have any epistemic significance, it would need to be imagined as being *correct*. I would be limited in my confidence that such a number exists, a confidence that I can't raise, no matter how many convincing details I add to the imagined situation. Yablo argues that the thought experiment can only show that non-GC is not inconceivable, without verifying it to be conceivable. Hence, it is undecidable.

Fiocco also presents a similar example from Peter Van Inwagen (1998).[78] In it, Inwagen asks if the proposition that there exists transparent iron is conceivable. More specifically, he asks if a world, in which a scientist makes an acceptance speech for his discovery of transparent iron, verifies the proposition that transparent iron exists. He argues that such a world might verify a disjunctive proposition.[79] One of the disjuncts could claim that transparent iron exists, but the other could claim that the scientist has somehow deceived the scientific community into believing that such material exists. It appears that the counterfactual situation of the acceptance speech is *consistent* with propositions which can subsequently claim *and* deny the existence of transparent

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[76] Yablo 1993: 31
[77] Yablo 1993: 31-32
[78] Fiocco 2007: 372
[79] Van Inwagen 1998: 79-80

iron. If consistency is what verification is about, then it is clear that the possibility can't be reliably tracked by it. Hence, a justification based on imaginability is dubious.

Interestingly, both authors come to different conclusions, based on those examples. In contrast to Inwagen, who seems to think that this is sufficient argument against conceivability (at least defined in terms of imaginability) as the basis for modal knowledge[80], Yablo doesn't consider this to be a problem per se. He believes that examples such as these simply require from the subject to be careful before acknowledging that a particular world is conceivable.

This is where the account of modal justification based on conceivability faces another serious problem, in terms of the assumed type of access to possible worlds. As presented above, Chalmers shares Yablo's idea of propositional imagining regarding modal conceivability. It provides the subject with the freedom to be justified in imagining a possible world in generic terms. As such, S doesn't need to imagine the precise qualities and structure of transparent iron. I only need to imagine a world in which there is *something* which is like iron and resembles glass, but it is not any of the two, and is called "transparent iron". By this account, it would seem that the epistemic access to possible worlds is very loose, because of the lack of any specificity in our imagining of them. If possible worlds are nothing more than representations invoking games of pretense, and we are justified in conceiving them as general descriptions, then under what conditions we would be able to distinguish one general description from another?

As Fiocco suggests, if modal imagination works by "simply stipulating" considerations for a given world, then any world is modally imaginable. Every world, for which we are capable to articulate a description, is a modally imaginable world. Thus, the subject can imagine worlds that represent possible states of affairs **and** ones that represent impossible states[81]. Then, it would

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[80] Van Inwagen 1998: 69
[81] Fiocco 2007: 374-375

seem that the mental ability to imagine a possible world and the role which these worlds play in verification doesn't provide any justification whatsoever for our modal beliefs. The necessary condition by which conceivability can be expressed as modal imaginability, in an epistemically significant way, relies on the ability of modal imagination to distinguish between possible and impossible counterfactual propositions. It also relies on its ability to reliably track possibility, by the nature of possible worlds as verifiers. Modal imagination fails to meet both of these criteria. As such, the validity of its epistemic status is unattainable.

This is only one side of the story, however. Hoffman's critique is meant to be a defense of Yablo's account, but it also presents an important consequence regarding it. While Fiocco's criticism of the epistemic importance of imagination is centered solely around it as a mental faculty with sufficient internal conditions for justification, Yablo's figuralism nevertheless presents a firm external condition by which imagination can trace possibilities. Possible worlds verify the content of the subject's modal believes by framing it as apparent and true within them. The promiscuity of this process, ascribed by Fiocco, might be uncalled for, however. Possible worlds, as metaphors within make-believe games, possess external boundary condition, which constrains and delineate their boundaries. Therefore, the lack of epistemic clarity, in the faculty of imagination, is regulated by external rules guiding and constraining the imagining of possible worlds.

As such Yablo's and by extension Chalmers's accounts of imagination don't fail by virtue of their modal rationalism. The reason lies elsewhere. If the boundary between literal and non-literal speech is not clear, as Hoffman argues, then those external rules of the game are not epistemically reliable. It is often the case that children don't think about fictional characters and entities as being fictional. Would we still assert that they are participating in a make-believe game despite clearly lacking both the understanding and the will to think about it as a game of

pretense? But if that is the case, possible worlds fail as a form of verification in their very notion, at least as employed by Yablo and Chalmers. They fail because make-believe games don't require the subject to be necessarily cognitively aware that certain possibility has been verified. As such, Yablo and Chalmers fail to establish imagination as epistemically significant, but the underlying reason comes from the notion of possible worlds which they employ and from the way in which they function as verifiers of modal beliefs, not merely from the promiscuous character of imagination.

5 Conclusion

As seen thus far, a complete account of modal knowledge relies on the idea that justification for the counterfactual propositions is synonymous with the performance of a certain mental task. Thus, it was argued that the mere possession of modal beliefs is itself the epistemic ground for modal knowledge. It is widely regarded that imagination is the process, by which such epistemic achievement is produced. That is why the conceivability, being the grounds for justifying counterfactual beliefs, is taken to be a process of modal imagining. Imagination was supposed to be an epistemically stronger condition for conceivability than mere belief or understandability. This appropriateness of imagination for the task was undermined by the epistemically problematic nature of the perceptual image, in the heart of the concept. A presumably successful solution, which attempted to preserve the epistemic insightfulness and usefulness of imagination, was found by removing the perceptual image as a condition for modal imaginability. Instead of a mental image, this upgraded account of modal knowledge relied on a conception of possible worlds as representations. But this strategy fails to take into account the legitimacy of stipulations in modal discourse. Modal imagination fails to reliably distinguish between genuinely possible worlds and impossible ones, because any world can be a product of modal imagination, simply by stipulating considerations related to these worlds. It also fails to provide a reliable way of tracking possibility, because consistency is taken to be sufficient condition for verification of modal beliefs by the possible worlds, following from their description as representations. As such imagination fails by virtue of the way in which possible worlds are defined and function in verifying modal beliefs. It fails to provide the epistemic grounds for the conceivability of modal propositions and by extension also fails to provide conditions for justifying modal knowledge.

This, however, might not be the case if a different account of possible worlds is called under consideration. Yablo's account of them, as representations within make-believe games, arguably fails to provide the necessity for the cognitive awareness of modality. In order for possible worlds to work as representations, they need to relate the awareness of the psychological content of the modal belief with the content of the counterfactual propositions justified by them, thus making their conceived possibility unambiguous. If possible worlds are envisioned as entities, which share the same ontological status as the actual world, that might provide metaphysical conditions for their identity, effectively overcoming the problem of general description and thus tilting the theoretical balance of usefulness in the direction of other possible worlds accounts, such as modal realism. This suggestion requires additional investigation beyond the intended scope of this paper.

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