AMERICAN UNIVERSITY OF BEIRUT

ON THE NECESSITY OF THE CAUSAL PRINCIPLE
A CRITIQUE OF HUME'S ANALYSIS OF CAUSATION FROM
THE PERSPECTIVE OF THE CONCEIVABILITY PRINCIPLE

by
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ABSTRACT
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Title: <u>On the Necessity of the Causal Principle: A Critique of Hume's Analysis of Causation from the Perspective of the Conceivability Principle</u>

In this thesis I will be discussing Hume's critique of the causal principle. I will explain his strategy in basing the argument on the conceivability principle. I will thoroughly elucidate the principle and provide its epistemic basis. Furthermore, I will discuss some challenges to Hume's critique from the perspective of some modal theories of imagination. After that, I will demonstrate my argument against Hume's critique and provide a proof for the necessity of the causal principle. Finally, I will conclude that the necessity of the causal principle is only applicable in general to causes and effects, rather than to specific causes and their respective definite effects. Therefore, I will adopt a causal principle as such: whatever begins to exist must have at least a cause, some cause, without which it won't be existing.

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CHAPTER 1

ON THE GENERAL PROBLEM OF CAUSE AND EFFECT

1.1. A Brief History

The topic of causation has witnessed a significant philosophical attention over history. Starting from the pre-Socratic era, philosophers declared a certain fixed framework of understanding reality. Heraclitus confirmed that "all things take place in accordance with strife and necessity," on the other hand, Democritus held that "nothing occurs at random, but everything occurs for a reason and by necessity" (Kirk, Raven, and Schofield 1991, 193 and 419). Similarly, we can find an analogous stance in the Roman thought. Cicero's commentary in *On Fate* clearly infers that only humans can ever doubt that the natural world is governed by necessity (Inwood and Green 1997, 186). Furthermore, Plato articulated a primary formulation of the principle that "everything that becomes or changes must do so owing to some cause; for nothing can come to be without a cause" *(Timaeus* 28a). The conception of causation was further developed with an extensive account of four different explanations (the material, the efficient, the final, and the formal cause) in Aristotle's Posteriori Analytics (I.2, 71b9-12) in Physics and Metaphysics. The notion of necessity of causation then got crystalized by the Stoics who explicitly maintained that every event is necessitated by specific causal conditions (Long 1996, 164). This notion of necessity then dominated the following major schools of thought in the middle ages, especially in the prominent work of Thomas Aquinas in his Summa

Theologiae (Ia 2,3). Contrary to Aristotle, most of the thirteenth century philosophers distinguished between two different types of efficient causes: *causa prima* and *causa secunda* (Dunphy, 1966, and Lauer, 1974), while maintaining the necessity of the principle with a significant theological implication. However, with the modern scientific revolution in the seventeenth century, the notion of causation witnessed a radical change, whereby philosophers rejected explanations by formal and final causes, and the only valid explanation accepted was that of the efficient cause. Moreover, the notion of efficient cause itself changed to take roots that "(a) all causation refers exclusively to locomotion, (b) that causation entails determinism and (c) that efficient causes were just inactive nodes in the chain of events, rather than the active originators of a change" (Hulswit). Furthermore, the issue of determinism of causal connection contributed to the development of various conceptions of causation. This framed the works of the rationalists' conception, mainly that of Descartes, Hobbes, Spinoza, and Leibniz who had a similar stance on determinism at one hand, and the empiricist conception of Newton, Hume, Kant, and Mill who had different considerations on this regard (ibid). In this thesis, we will only discuss Hume's famous critique of the necessity of the causal principle.

Hume did not take the common conception of causation for granted, rather he offers an in-depth challenge to what experience concedes us to realize about causes and effects. Hume's greatest contributions to the topic under study are found in *A Treatise of Human Nature*, and *An Enquiry concerning Human Understanding,* with the latter considered as a recasting of the earlier. He reflects that nature conceals its powers such that we can't experience the hidden aptitudes and essences that constitute things as they are. What

experience provides, on the other hand, is only what is characterized by our five senses. And since we don't perceive any necessary connection as events unfold, Hume concludes that it is fallacious to attribute any necessity to things in themselves. Consequently, this phenomenological empiricist approach of analysis allowed Hume to deny the alleged necessary connection between causes and their respective effects; the view that dominated the history of philosophy. He claims that "upon the whole, necessity is something, that exists in the mind, not in objects; nor is it possible for us ever to form the most distant idea of it, consider'd as a quality of bodies" (Treatise1989, 165–66). In return, he suggests that the perceived regularities in nature are due to constant conjunction that makes us psychologically certain that whenever A is perceived, B will follow accordingly. We can find two arguments in Hume's analysis that reject the claim that necessity belongs to relations of things:

1) The absence of an impression of necessity in the perceived causal events.

2) The difference and distinctness between the notion of a cause and that of an effect.

We will be discussing each of the two arguments in the section dedicated for explaining Hume's critique of the causal principle.

1.2. A Pre-Humean Critique

However, it is worth noting that Hume isn't the first philosopher to provide a critique of causation as such. We can find a similar analysis in the works of the eleventh century Persian philosopher and mystic Imam Al Ghazali in his book *Tahafut Al Falasifa, or The Incoherence of the Philosophers* (Dutton, 2001). Even though the purpose of his

critique was purely theological and extends from textual interpretations; nevertheless, his

critique is rational and philosophically dense. He argues that:

> "The connection between what is habitually believed to be a cause and what is habitually believed to be an effect is not necessary, according to us. … and where neither the affirmation of the one entails the affirmation of the other nor the negation of the one entail negation of the other, it is not a necessity of the existence of the one that the other should exist, and it is not a necessity of the nonexistence of the one that the other should not exist. . .. Their connection is due to the prior decree of God, who creates them side by side, not to its being necessary in itself, incapable of separation." (Tahafut, page 170).

> Likewise, we find several similar critiques of causation in the western tradition even before Hume's analysis. Nicholas of <u>Autrecourt</u> in the fourteenth century and Malebranche in the seventeenth century are good examples (Boulter, 2011, p. 19). The French philosopher Nicholas of Autrecourt stipulated that it is inadmissible to infer effects from causes as long as there is no contradiction in viewing one independent from the other. Autrecourt's analysis is discussed in <u>Buridan's</u> discussion (ibid):

> "Again, a conclusion or an effect cannot be known through its cause, or a cause through its effect, because the cause is not contained essentially or virtually in its effect. ... [So] it seems that we can never have evident knowledge of one thing through another, because there is no evidentness, except by reduction to the first principle, which is grounded in contradiction. However, we can never have a contradiction concerning two diverse things: for let us assume that they are A and B; then it is not a contradiction that A exists and B does not exist, or that A is white and B is not white. Therefore, there will never be an evident inference concluding that A exists from the fact that B exists, and so on for other cases." (In Klima 2007, 144).

On the other hand, Malebranche admits that events happen in patterns, but it is a

blunder to attribute necessity to those patterns in themselves. Patterns, he explains, happen

according to God's will such that we can never explain regularities in nature by means of

causal powers (Dreher 2017, p. 331).

1.3. Dimensions and Scope

The issue of causation has several dimensions of distinct problem-areas. We note the following:

1) The problem of the necessity of a cause for the beginning of existence.

2) The problem of the necessary connection between specific causes and their respective effects.

3) The problem of the nature of the conjecture from cause to effect (and vice-versa).

4) The problem of induction and the uniformity of nature.

5) The problem of the nature of the belief involved when causal inferences take place.

In this paper, we will only focus on the first three points. Substantially, the paper will proceed in the following manner:

1- First, I will discuss Hume's critique of the causal connection. I will present the argument, shed light on its essential premises, hidden assumptions, and the underlying faculties involved in the formulation of the critique.

2- Second, I will show that Hume's argument is a form of what is known as a "conceivability argument". Afterwards, I will explain such arguments and provide some examples from the literature.

3- Third, I will present some refutations to Hume's argument, and then assess their validity against Hume's claim. Moreover, I will present my own refutation to Hume's conceivability argument and claim that Hume's analysis fails to validate its conclusion.

4- Fourth, I will present my own understanding of the causal principle and argue that the principle is necessarily true about reality. I will distinguish between the causal principle, as a general notion relating things necessarily, from causal instances connecting specific causes to their respective effects, which are contingent by nature. Therefore, I will defend an account of the causal principle as such: Whatever begins to exist must have at least a cause, some cause without which the effect wouldn't be existing. In this regard, the causal principle asserts necessary connection between causes and effects, such that the former produces the latter, yet without necessitating a specific cause to a particular effect.

CHAPTER 2

HUME'S EPISTEMOLOGY & THE ORIGINS OF THE CAUSAL PRINCIPLE

2.1. Hume's Fork

Before presenting Hume's analysis of causation, it is mandatory to briefly clarify his epistemology to have a better understanding of his critique. Hume reduces human knowledge into two distinct categories: matters of fact and relations of ideas, such that all knowledge of thought is reduced to only these two classes. This was later to be known as Hume's Fork. He presented this division in the fourth section of the Enquiry, which laid the epistemological basis for his critique of causation.

Relations of ideas, Hume argues, are either intuitively or demonstrably certain. An intuitively certain proposition is a proposition whose truth is known by simply reflecting on its meaning. Propositions belonging to this type of knowledge are discovered by the operation of thought, without dependence on what is existent in the universe. Once we understand the terms of the proposition and the relation amongst its parts, we can directly infer its truth. Furthermore, relations of ideas are also demonstratively certain in the sense that their truth is known by logical derivations from their respective premises. For example, sciences of mathematics, logic, and semantics fall under this category as their truths are intuitively or demonstrably certain and known by mere reflection on their meaning, regardless of any existential fact about reality. Hume writes: "though there never were a

circle or triangle in nature, the truths, demonstrated by Euclid, would forever retain their certainty and evidence" (Enquiry, page 25).

On the other hand, the truth of matters of fact are based on experience since such propositions are neither demonstrable nor intuitive. They inform us about events happening in the world that don't stem from any act of reasoning. Matters of fact are only perceived through the senses and their truth is only validated by experience. Consequently, they cannot be intuitively known to be true as they are experience-laden. Furthermore, Hume theorizes that as long as we can conceive the opposite of every matter of fact with an alike clarity and distinctness without implying any contradiction, then their opposite is also empirically possible and a subject of a possible experience. Hume clarifies his point by reasoning that "the sun will not rise tomorrow is no less intelligible a proposition, and implies no more contradiction, than the affirmation, that it will rise" (ibid).

And since propositions related to causation belong to matters of fact, they are then neither demonstrably nor intuitively certain. We can never know the truth of causal relations without experiencing the world; and thus, we can never ground their truths a priori. And since truths that are experience-laden are not necessarily true, it follows that causal relations are not necessary relations. This is critique of causation primarily based on the aforementioned Humean epistemology as it distinguishes between matters of fact and relations of ideas. However, we will further investigate Hume's main critique of causation in the relevant section. If this confutation of causal necessity is so simple and clear, then why it hasn't been administered with clarity amongst previous major philosophers? How did the concept of necessity of causation become so evident to these philosophers? Hume

tries to investigate the origins of the concept of necessity pertaining to causation and unlocks this mystery.

2.2. The Concept of Necessity of Causation

Before delivering his critique of the causal principle, Hume first delves into the origins of the necessity attributed to causality. I will present his findings only briefly for the sake of understanding the epistemology that mistakenly contributed to the attribution of necessity to causation. I will demonstrate the reasons that Hume thinks could be behind the alleged necessity. These can be listed as follows:

1) Experiencing the natural world.

2) Introspecting the operation of our will.

3) Attributing the necessity to God.

Hume denies that experience provides any necessary connection between the perceived causes and effects. He argues that when we contemplate the operation of causation, we are never able to discover any force that necessarily binds effects to their causes. On the contrary, experience only shows succession of events without revealing any concealed powers of necessity connecting causes to effects (Enquiry, page 63). Furthermore, Hume denies that necessity can also be derived from introspecting the operation of our will in both voluntary bodily actions and in deliberate thinking or imaging. If there were necessary connection, then we would be able to understand the following:

1) How the mind interacts with the body.

2) Why we can control some bodily parts and not others.

3) Why we are only conscious about ideas and images and not the powers bringing them.

4) Why we have more control over some ideas and not others.

Hume assumes that to be aware of any connection, we ought to know how this association works. Someone might object that our ignorance of how things work doesn't entail the absence of a hidden necessity governing that event in process. This would be missing Hume's point, as his argument is that as long as we can't understand the aforementioned activities, then we can definitely not ascribe any necessary connection to them. This is because if we can ascribe necessity to such connections, then we would be knowing that such necessity pertains to them, and thus they would be also known, which isn't the case. Another objection would be that the notion of necessity could be deduced from the feeling of power upon forcing oneself to think or lift something heavy. In such a case, a person would have an impression of power that he might then attribute to causes and effects. This refutation doesn't hold, since the experienced power is the effect of the will, and not the underlying connection between the will, being the cause, and the consequent effect, the feeling of power itself. Even though Hume raises the possibility that the notion of power arises from this personal feeling of power upon voluntary action or deliberate thinking; nevertheless, he confirms that we cannot attribute our feeling of power to understand causation in inanimate objects. I think my refutation would save Hume much more than his reply would. But to give credit to this argument, this personal feeling of the power of the will, even though it fails as an evidence to ground the notion of necessity of causation as discussed, it gives a psychological understanding of concepts of ability and

responsibility that both would make us understand and make sense of causation and necessity. Thirdly, Hume denies that the notion of necessary connection could be derived from God's will. Hume explains that since we can't understand how God operates in general and since we have no access to the connection between God and the world, in case there is any, then we can never identify necessity from such an obscure connection.

Therefore, since none of these possibilities justify our comprehension of a necessary causal connection, Hume then meticulously analyses where exactly, in our process of comprehension, this idea arises. It becomes clear that only after several experiences of the same event, i.e. several occurrences of events A followed by events B, can one start to suppose a necessary connection between perceived repetitive occurrences. This is because the mind becomes accustomed or habituated to expect B whenever it perceives A. After that, the mind makes its first error and formulates a conceptual necessity to explain the constant connection in repetitive experiences. It then errs again when it projects this necessity on causes and effect, and thus misleading us to think that such a necessary connection exists independently from our mind. What we should have concluded, Hume argues, is that the perceived repetitive occurrences are mere "constant conjunction" between events and not necessary connection between things.

He concludes:

> "Upon the whole, necessity is something, that exists in the mind, not in objects; nor is it possible for us ever to form the most distant idea of it, consider'd as a quality in bodies. Either we have no idea of necessity, or necessity is nothing but that determination of the thought to pass from causes to effects and from effects to causes, according to their experienc'd union." (Treatise 165-166).

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2.3. Hume's Definition of Cause

From what has been said, we can now identify Hume's definition of causation. In the *Enquiry*, Hume provides two different yet related definitions of causation:

1) D1: "therefore, we may define a cause to be an object, followed by another, and where all the objects similar to the first are followed by objects similar to the second" (page 76).

2) D2: "and call it [cause], an object followed by another, and whose appearance always conveys the thought to that other" (page 77).

D1 emphases the actual recurrence of effects to the respective similar causes. On the other hand, D2 emphasizes the psychological anticipation of effects upon the perception of causes. Hume provides the below example to clarify his point.

> "We say, for instance, that the vibration of this string is the cause of this particular sound. But what do we mean by that affirmation? We either mean, that this vibration is followed by this sound, and that all similar vibrations have been followed by similar sounds: Or, that this vibration is followed by this sound, and that, upon the appearance of the one the mind anticipates the senses, and forms immediately an idea of the other." (Enquiry, 77).

Furthermore, there is a huge literature discussing which definition fits more the Humean context. In his book "Hume's Epistemology and Metaphysics: An Introduction", George Dicker (1998:) presents some of these interpretations, summarized as such:

1) Stroud: Some would argue that D1 once satisfied will lead to D2. This is because the succession of causes by their respective effect would in fact create

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that psychological expectation of anticipating effects whenever their respective causes are perceived (Stroud 1977: 90)

2) Stroud: Hume didn't intend to define causation (1977: 89)

3) Robinson: only D1 represents Hume's view (Robinson 1962)

4) Don Garrett: D1 and D2 are equivalent (Garrett 1997: 107-17)

5) Dicker: D1 is the correct definition since causal events are real incidents happening independent of our cognition and psychological anticipations.

I think Stroud's first interpretation would best reconcile both definitions, and thus make a better account of Hume's approach to the subject under study.

CHAPTER 3

HUME'S CRITIQUE OF THE CAUSAL PRINCIPLE

3.1. The Critique

In this section, I will demonstrate Hume's critique of the causal principle. Initially, it is important to note that Hume accepts the causal principle as a true proposition, yet he rejects the principle as an a priori necessity. In his Enquiry, he writes "it is universally allowed that nothing exists without a cause of its existence" (page 95), and in one of his letters he says "I never asserted so absurd a proposition as that anything might arise without a cause" (Grieg 1932:187). Furthermore, in his book "The Imagination in Spinoza and Hume", W. C. Gore (Chicago, 1902) similarly concludes that "Hume never doubts the reality of causation or of objectivity, as I understand him, but is concerned solely in accounting for the way in which we come to have believable ideas of such realities" (page 41). Gore's understanding of Hume confirms this same analysis that the issue at stake is regarding the manner in which we concluded that causation is necessary and not the reality of causal relations happening in nature. He quotes the Treatise: "We may begin by observing that the difficulty in the present case is not concerning the matter of fact, or whether the mind forms such a conclusion concerning the continued existence of its perceptions, but only concerning the manner in which the conclusion is formed, and the principles from which it is derived" (Treatise, page 206).

However, the principle, according to Hume, cannot be known independent of experience; and thus, it is not intuitively nor demonstratively certain as previously noted. This is because a demonstrative proof is analytic by nature and requires a thorough and systematic deductive method that experience cannot provide. Similarly, experience doesn't provide a base for intuitive knowledge since what is gained through experience is known through it, and thus its knowledge cannot be independent of experience, and hence is not known intuitively. Consequently, the causal principle according to Hume, as shall be seen, is only known through experience. Therefore, the principle is no more than a generalization of instances of experience, based on which the alleged necessity is mistakenly attributed. He writes: "the opinion of the necessity of a cause to every new production… must necessarily arise from observation and experience" (Treatise, page 82).

There are two arguments that Hume employs to emphasize his stance that causal necessity isn't a nature of things, noted as such:

1) The absence of an impression of necessity in the perceived causal events.

2) The difference and distinctness between the notion of a cause and that of an effect.

For the first claim, Hume argues that we cannot identify any necessity between things as portrayed by perception. He claims that "necessity is something, that exists in the mind, not in objects" (Treatise, page 165). Experience, on the other hand, only provides conjunction and succession of events and doesn't show any force or power linking causes to effects. Events of type A followed by events of type B occur as a mere sequence or chain of actions, such that a causal phenomenon is perceived upon a certain sequence rather than

upon a certain production. For instance, upon observing how a heat gun melts an ice cube, experience shows that the ice melts 'upon' interaction with the heat gun, and not 'by' the heat gun. Even though, we tend to explain this event by using the term 'by', yet this addition is a mental imposition onto the experienced phenomena and is not a description of what experience is providing us. Therefore, we can deduce that there is no causal connection between causal events since there is no impression of necessity in the perception of any causal phenomena. One objection would be that the absence of an impression of necessity doesn't necessarily mean that there is no necessity. There might be necessity, but we cannot perceive it. The fallacy behind this argument is that it builds a skeptical claim based on a mental concept that we are certain of what it indicates. Necessity is a logical concept, and its well identified by reason. Once we have a causal impression, we can compare the type of connection between causes and effects with the notion of necessity that we know, and directly conclude the absence of such necessity. Furthermore, if there was such a necessity within the causal connection, we would have comprehended it as much as we comprehend the notion of necessity itself. To claim that there is "unperceived necessity" would be borrowing that logical necessity that we are aware of, and project it into causal connections and then claim that it got masked obscurely. This is a claim that seems inconsistent. However, the second claim is our major focus in this paper. I will proceed by explaining it and will dedicate the rest of the thesis unfolding it thoroughly. So, how does Hume establish the unnecessity of causal events from the distinctness of the notions of cause and effect?

The proof of the second claim rests upon the analysis of concepts of cause and effect. Hume therefore investigates the epistemic nature of the truth of causal connections. As noted above, the principle is neither intuitive nor demonstratively certain. And Hume's argument in this regard is detailed in the Treatise. He writes:

> "But here is an argument, which proves at once, that the foregoing proposition is neither intuitively nor demonstrably certain. We can never demonstrate the necessity of a cause to every new existence, or new modification of existence, without shewing at the same time the impossibility there is, that any thing can ever begin to exist without some productive principle." (Page 79).

Hume argues that in order to prove the necessity of the causal principle, we ought to demonstrate the impossibility of postulating something that begins to exist without any cause. But since we can never show the impossibility of a causeless event; therefore, we can never establish the necessity of the causal principle. He then continues to prove why we cannot establish the impossibility of a causeless event. He says:

> "Now that the latter proposition is utterly incapable of a demonstrative proof, we may satisfy ourselves by considering, that as all distinct ideas are separable from each other, and as the ideas of cause and effect are evidently distinct, 'twill be easy for us to conceive any object to be non-existent this moment, and existent the next, without conjoining to it the distinct idea of a cause or productive principle. The separation, therefore, of the idea of a cause from that of a beginning of existence, is plainly possible for the imagination; and consequently the actual separation of these objects is so far possible, that it implies no contradiction or absurdity; and is therefore incapable of being refuted by any reasoning from mere ideas; without which 'tis impossible to demonstrate the necessity of a cause." (Page 80).

The syllogism runs as follows:

1) All distinct ideas are separable from one another.

2) The ideas of cause and effect are evidently distinct.

3) It is easy to conceive any object to be non-existent at a moment and existent the next without any cause.

4) Therefore, the separation between the idea of cause from the beginning of existence is possible for the imagination.

5) Therefore, the actual separation between causes and the beginning of existence is possible.

6) Thus, it applies no contradiction or absurdity, and thus cannot be refuted by reason.

7) Consequently, reason cannot demonstrate the necessity of the causal principle.

By (1), Hume considers that all distinct ideas are separable by reason. "Distinct ideas" are ideas that are clear, complete, non-relative, and sufficiently refer to certain impressions, as I comprehend. They are clear in the sense that they don't need further illustrations to be comprehended; and thus, complete as they don't rely on other ideas to clarify them. Unlike suppositions that are relative notions aimed to clarify the unknown nature of things by means of relations to other known objects and ideas, distinct ideas are thus non-relative as they sufficiently indicate the nature of a thing without any further employment of another term or idea. Furthermore, distinct ideas are specific to what they refer to in the sense they have no confusing element that would mislead the mind towards undetermined or false referents.

Even so Hume did not explicitly define his understanding of "distinct ideas", we can still interpret his understanding from his writings. In the Enquiry, Hume implicitly indicates his understanding of "distinct ideas" when he was relating ideas to impressions. He states: "I believe it will be readily be allowed, that the several distinct ideas of

color…*are really different from each other …* and each shade produces a distinct idea, *independent of the rest*" (page 81, emphasis added). Furthermore, he argues that mathematical sciences have greater advantages than the moral because the ideas of the former are "always clear and determinate, the smallest distinction between them is immediately perceptible, and the same terms are still *expressive* of the same ideas, *without ambiguity or variation*" (page 60, emphasis added). Even though Hume here is strictly referring to mathematical notions, yet he is favoring such ideas over moral ones because they are more distinct; and thus, he elaborates on this distinctness as emphasized in the aforementioned quote. Furthermore, the clearest passage that emphases the absolute comprehensibility of distinct ideas is found in his discussion on skepticism: "How any clear, distinct idea can contain circumstances, contradictory to itself, or to any other clear, distinct idea, is *absolutely incomprehensible*; and is, perhaps, as absurd as any proposition" (page 115, emphasis added). In this quote, Hume stresses the impossibility and absurdity of self-contradictory distinct ideas. This leads us to say that distinct ideas according to these interpretations are different from each other, independent, expressive, have no ambiguity or variation, and are absolutely comprehensible, this corroborates, to high precision, my interpretation above. It is worth noting that similar use of the term "distinct" has precedence in the history of philosophy. Descartes employs the terms "clear and distinct" in his Meditations, and similarly, Berkeley distinguishes between an "idea" and a mere "notion" in the third Dialogue and the second edition of the Principles. Locke uses similar terms in his Essay, II.xxiii.2 & II.xxiii.3.

However, Hume confirms that all distinct ideas are separate. This is because, as much as distinctness refers to the clarity of meaning and referents, it also refers to the vivid demarcation of what that concept is not. Therefore, as far I as analyze, this confirms premise (1) that all distinct ideas are separate. As premise (1) is now clear, Hume confirms that the notion of cause and effect are two distinct notions, premise (2), since reason conceives them to be two different notions referring to two different things. And thus, they are two separate concepts to an extent that reason can conceive a thing to be non-existing this moment and existing the next, vis-à-vis an effect, without conceiving any cause, i.e. premise (3). This conceivability of a causeless beginning of a thing, Hume concludes, implies the imaginability of this event, which leads to premise (4): the separation between the idea of cause from the beginning of existence is possible for the imagination. In this premise, Hume seems to move from conceivability to imaginability, whereby he turns the talk from what we can conceive to discuss "what is possible for the imagination" (page 80). In the sub-section below, I will address this shift and try to provide an understanding of this step. However, based on this epistemic conclusion, Hume then deduces that the actual separation of causes and the beginning of existence is actually possible. By the transition from premise (4) to premise (5), Hume grounds the actual possibility of a causeless event on the imaginability of this scenario. Therefore, if a causeless event is actually possible, then it implies no contradiction or absurdity to postulate that the causal principle is not necessary and cannot be established by a demonstrative and intuitive proof. In order to reach this conclusion, an underlying assumption is employed, merely that nothing that we can conceive entails a contradiction. And since whatever does not imply a contradiction

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cannot be demonstrated to be impossible, Hume's conclusion follows necessarily that we

cannot demonstrate the necessity of the causal principle.

The core of Hume's argument, I analyze, reflects two major claims:

Claim 1: It is actually possible for a thing to begin to exist without any cause. From his claim:

"and consequently the actual separation of these objects is so far possible" (page 80).

Claim 2: It is impossible to prove the necessity of the causal principle. From his claim: "that

the foregoing proposition is neither intuitively nor demonstrably certain" (page 79)

The first claim is a metaphysical one that undermines any alleged necessity of any

causal relation; yet it does not, by any means, assert that things are happening or will

happen without any cause. This position is consistent with Hume's skeptical method and I

will adopt this interpretation accordingly, as opposed to the claim that Hume asserts that

things that are emerging into existence are doing so without any cause. This position is a

metaphysical assertion that, initially, Hume rejects as a skeptical empiricist. However, the

second claim is epistemic that undermines reason's capacity to establish a necessary proof

of the causal principle. This is also embraced by Hume as he shows that we cannot provide

a demonstrative proof for the necessity of the causal principle.

Dicker (1998) re-formulates Hume's argument to incorporate hidden assumptions

and premises. He writes (page 137):

(1) All distinct ideas are separable from each other (premise).

(2) The idea of a cause of existence is distinct from the idea of a beginning of existence

(premise).

(3) We can conceive of something beginning to exist without a cause (from (1) & (2)).

(4) Nothing that we can conceive implies a contradiction (suppressed premise).

(5) "X began to exist and X had no cause" does not imply a contradiction (from (3) & (4)).

(6) If p does not imply a contradiction, then we cannot demonstrate that p is impossible (suppressed premise).

(7) We cannot demonstrate that a beginning of existence without a cause of existence is impossible (from (5) & (6)).

(8) We can demonstrate that whatever has a beginning of existence must have a cause of existence only if we can demonstrate that a beginning of existence without a cause of existence is impossible (premise).

(9) We cannot demonstrate that whatever has a beginning of existence must have a cause of existence (from (7) & (8)).

Dicker added premise (4) & (6) to make Hume's argument coherent and systematic. This addition is well accepted by Hume and even seems already presumed in Hume's original argument. As for premise (4), that nothing we conceive implies a contradiction, Hume assures this premise when he states that "any clear, distinct idea can contain circumstances, contradictory to itself, or to any other clear, distinct idea, is *absolutely incomprehensible*; and is, perhaps, as absurd as any proposition" (page 115). It is clear from this quote, that Hume considers that distinctness of an idea negates its contradictoriness; and thus, whatever clear and distinct idea is conceivable by reason and cannot be self-contradictory. On the other hand, Hume clearly mentions premise (6) at the

beginning of his analysis when he stated: "we can never demonstrate the necessity of a cause to every new existence, or new modification of existence, without shewing at the same time the impossibility there is, that any thing can ever begin to exist without some productive principle" (Page 79).

From what has been said, we have clarified Hume's argument for undermining the necessity of the causal principle, except for his shift from conceivability to imagination from premise (3) to premise (4). I think this step is critical and worth a deep investigation, as we will be focusing on the role of imagination and conceivability in grounding Hume's critique. As I will show, imagination serves as an essential epistemic foundation for establishing the critique; and therefore, having a deeper understanding of the role of this faculty would allow us to have a better understanding of Hume's argument and in return would facilitate my refutation to Hume's critique accordingly.

3.2. Hume On Conceivability

According to the Oxford Dictionary of Philosophy, to conceive is to "hold in the mind, or form an idea of something" (page 72). Yet, Hume seems to add more to this definition as he considers that conceivability entails possibility. The below passages present an evident indication of Hume's understanding of conceiving, imagining, and the formation of ideas as interconnected faculties on one hand, and their modal competence to assert the possibility of existence on other:

"'Tis an established maxim in metaphysics, that whatever the mind clearly conceives includes the idea of possible existence… We can form the idea of a golden mountain, and from thence conclude that such a mountain may actually exist" (Treatise, 32)

"Whatever can be conceiv'd by a clear and distinct idea necessarily implies the possibility of existence" (Treatise 43)
"The contrary of every matter of fact is still possible; because it can never imply a contradiction, and is conceived by the mind with the same facility and distinctness, as if ever so conformable to reality" (Enquiry 25)
"whatever we conceive is possible, at least in a metaphysical sense..." (Abstract, 650)
"Nothing of which we can form a clear and distinct idea is absurd and impossible" (Treatise 19-20)
"that nothing we imagine is absolutely impossible" (Treatise, 32)

"We can form no idea of a mountain without a valley, and therefore regard it as impossible" (Treatise, 32)

"We can at least conceive a change in the course of nature; which sufficiently proves, that such a change is not absolutely impossible" (Treatise 89)

These passages show that, according to Hume, conceivability involves coherence of concepts and a function that grants reason the ability to infer metaphysical possibilities. In this respect, conceivability provides modal knowledge of propositions by mere reflection on concepts themselves. In other words, what is indicative to what might exist is primarily whether we can have an idea of it. In the first quote, Hume assures that it is a firm maxim that whatever the mind conceives includes the idea of possible existence. Nevertheless, we find some philosophers disagreeing with Hume as shall be discussed below. This maxim is also articulated differently in other sections as noted above. However, this Humean principle that whatever is conceivable is metaphysically/actually possible is known as the "Conceivability Principle" (e.g. Hume on Conceivability and Inconceivability, Lightner, 114) and the arguments based on it are known as "Conceivability Arguments" (e.g. Is Conceivability a Guide to Possibility, Yablo, 13). The Conceivability Principle is

applicable to conceiving objects (e.g. Treatise 32), events (e.g. Treatise 89), and propositions (e.g. Treatise 79-80) as noted in the quotes above.

3.3. Hume on Imagination

In this part, I will be discussing Hume's understanding of "Imagination", and I will identify what he is referring to by this term in his conclusion that "therefore, the separation of the idea of a cause from that of a beginning of existence is plainly possible for the *imagination*" (Treatise 79, emphasize added).

To start with, let me eliminate some linguistic senses of the term "imagination" that are not intended in this regard for certainty. If imagining means presume, suppose, postulate, assume, form an idea, take it as given or for granted, and consider a thought, then it cannot serve as a guide for possibility. In this aspect, imagination is only used to postulate an idea that reason has yet to investigate its modal value, whether possible, impossible, or necessary. On the contrary, Hume is clearly making a proof out of his understanding of imagination; and thus, "imagining" in this Humean sense is not a mere supposition. Therefore, this lexical understanding of the term does not explain Hume's use of "imagination" in his premise. However, going back to the literature, it seems that Hume uses several implications of the term interchangeably. At some points, he refers by "imagining" to the process of reasoning, and in other places, he refers to memory and the process of forming ideas and mental images.

Indeed, Hume was clear about this in his note to Book I of the Treatise:

"In general, we may observe, that as our assent to all probable reasonings is founded on the vivacity of ideas, it resembles many of those whimsies and prejudices, which are rejected under the opprobrious character of being the offspring of the imagination. By this expression it appears that the word, imagination, is commonly us'd in two different senses; and tho' nothing be more contrary to true philosophy, than this inaccuracy, yet in the following reasonings I have often been oblig'd to fall into it. When I oppose the imagination to the memory, I mean the faculty, by which we form our fainter ideas. When I oppose it to reason, I mean the same faculty, excluding only our demonstrative and probable reasonings. When I oppose it to neither, 'tis indifferent whether it be taken in the larger or more limited sense, or at least the context will sufficiently explain the meaning." (Page 117).

In this note, Hume clearly states that he uses the term "imagination" in different denotations at least throughout the Treatise. In some instances, he correlates imagination with the ability to form fainter ideas of the memory, and in other instances, he associates imagination with the ability of reasoning excluding the ability of demonstration and probable rationalization. Furthermore, Hume confesses that he might have used the term without any indicative reference. In such situations, the context explains the meaning, as he confirms. From this it follows that Hume never explicitly stated his general conception of imagination (Wilbanks, 72); and therefore, it would be beneficial to present some of the hypotheses available in the literature. In the next couple of pages, I will briefly narrate four interpretations of Hume's theory of imagination and its epistemic function without dwelling further into its complexity, from the works of W. C. Gore, Harold Taylor, N. K. Smith, and E. J. Furlong, as inspired by the work of Jan Wilbanks, *Hume's Theory of Imagination*.

Initially, Gore clarifies the resemblance between imagination and memory as both being repetitions of impressions and reproductions of previous perceptions (Gore, 33). On the other hand, imagination and memory differ, Gore explains, in two respects: first, ideas

of memory have more force and vivacity than those of imagination; second, imagination

has freedom and power in arranging past impressions that memory doesn't have (ibid). On

the other hand, he articulates a simile to elucidate the difference between reason and

imagination as he describes imagination as the "clay in the hands of the potter, custom"

(page 37). He intends to stipulate "custom" in this analogy because he considers that,

according to Hume, custom lies at the core of both imagination and reason. In this sense,

imagination is the malleable, delicate, flowing, and spontaneous component; on contrary,

reason is the rigid, sober, solid, which is only operative in accordance with universal

principles and conventional rules. Therefore, custom or habit is the basis of configuration

that imagination builds on to create further images of the mind, a conclusion that explains

the aforementioned simile. Gore successfully describes how imagination has a dynamic and

critical role in fluently connecting successions of ideas into a coherent series before reason.

He emphasizes its role in configuring knowledge that neither the senses nor reason can

provide. Imagination seems capable of transcending the restrictions of the sensual

experience to connect respective impressions with further ideas, which brings further

knowledge of matters of fact. He writes:

> "A faculty sufficiently plastic and coherent to carry the mind beyond the present
> object or idea to an idea not present but resembling the usual attendant of the
> present object or idea. This is exactly what imagination seems to be capable of
> doing, for "the imagination when set into any train of thinking, is apt to continue,
> even when its object fails it, and like a galley put in motion by the cars, carries on
> its course without any new impulse" (Treatise, 198). The imagination is all the more
> inclined to do this, if the contiguous and successive objects have been repeated. The
> more frequent the repetition of any given contiguous and successive objects has
> been, the more readily the imagination passes from the given present object to an
> idea resembling its absent attendant; that is, from the experienced to the not-
> experienced. In other words, constant conjunction, operating upon the imagination
> by means of the principles of the association of ideas, makes possible what neither

sense nor reason could give, namely, ideas which are not given in and through the present experience, but which resemble the impressions usually had in conjunction with this object which is now the sole content of sense-experience. When the mind in and through the carrying or propensive quality of the imagination passes from a present object to an absent attendant, it reasons from cause to effect, or from effect to cause." (pages 42-43)

Furthermore, as Gore explains in the above quote, it becomes clear how imagination plays a critical role in the formulation of cause and effect according to Hume. This formulation may allow Hume to involve imagination in the grounding of his conclusion. The reason behind this shall be discussed in later sections.

On the other hand, Taylor believes that Hume defines imagination in functional terms. He thinks that imagination according to Hume is a unifying agent that brings together impressions of the senses and the ideas of the reflection. Furthermore, Taylor concludes that whenever Hume opposes imagination to reason, the former becomes mere fancy, and when opposed to memory, its ideas are of less intensity and less uniformity. Moreover, he then thinks that imagination provides the foundation of belief as it provides liveliness and strength to propositions having a truth value. In addition, imagination, according to Hume as Taylor puts it, transcends the present and past, and has the power to project expectancies over the future based on certain coordination of ideas and impressions. Hitherto, providing the possibility of a conception of a cause and of objectivity (Taylor, 183).

Furthermore, Smith also distinguished two different senses in which Hume uses the term imagination. In the ordinary sense, he writes, imagination is the faculty of feigning

(Smith 137). This sets imagination in contrast alike to sense-perception, judgment, and memory. The second sense, or the "special sense", imagination signifies vivacity of conception and thought. From this special sense, imagination is the title for the mental processes through which realities are apprehended. This brings Smith to discuss imagination from the perspective of the doctrine of belief, vis-à-vis, the doctrine that belief is nothing but vivacity of conception. And since belief should be objective rather than subject, then it follows that imagination when contrasted to belief, operates within permanent, irresistible, and universal principles. In this respect, Imagination as Smith understands Hume becomes the core faculty on which senses, memory, and understanding are all founded.

Finally, Furlong considers imagination to be the center of our perception of the world. He notifies that as all philosophers refer to intellect or reason as a fundamental tool for problem-solving, Hume refers to imagination.

> "To think is, for Hume, to have ideas. But all ideas, he holds, are images. Hence to think is to have images, i.e., to imagine. A theory of thinking will be a theory of imaging. We therefore find Hume using "imagination" where another man, uncommitted to the view that all ideas are images, would employ "thought" or "mind." Sometimes, of course, Hume forgets, and we find him using "mind" in a context where his theory would require "imagination"; e.g., d. "the nation, mind when set into any train of thinking ... " and "as the is once in the train of observing an uniformity (Treatise, 198)." (Page 63)

From what has been said, we can deduce that imagination plays a critical epistemic role in the formulation of knowledge about the world in Hume's philosophy. Its power of forming, joining, and separating ideas makes it essential for any science to flourish within the multiplicity of ideas and impressions. Without this fluidity, knowledge wouldn't be

possible since reason would be fixed at a certain thought or impression and wouldn't be

able to transcend that thought and impression, to build upon further ideas. But does this

give imagination the power of knowing possibilities and modal truths in general? This shall

be discussed in later sections when I relate empiricism with relationalism to uncover

Hume's essential premise that whatever is imaginable is possible.

Hitherto, this brings us to discuss the relation between conceivability and

imaginability. As it is clear by now that Hume uses the terms conceivability, imagination,

and formation of ideas interchangeably, to what extent the notion of conceivability and

imagination are employed distinctly in Hume's critique?

3.4. On Conceivability and Imagination

As noted previously, while Hume was establishing the critique of the causal

principle, he suddenly shifts the discussion from conceivability to imaginability. He then

concludes that the possibility of the actual separation of causes and effects is based on the

imaginability of this event, and in return, the imaginability is based on its conceivability.

He writes:

> "'twill be easy for us to conceive any object to be non-existent this moment, and
> existent the next, without conjoining to it the distinct idea of a cause or productive
> principle. The separation, therefore, of the idea of a cause from that of a beginning
> of existence, is plainly possible for the imagination; and consequently, the actual
> separation of these objects is so far possible." (page 79).

In this excerpt, Hume confirms that the idea of something beginning to exist is

different than the idea of something being caused or produced. Thus, we can think of the

former without the latter. This thought process that makes the two concepts comprehensible and that governs the distinctness and separability of the two is, as I argue, what Hume means by "conceive". For ease of reference, the above quote can be written as such:

1. It is easy for us to conceive any object to be non-existent this moment, and existent the next, without conjoining to it the distinct idea of a cause or productive principle.

2. Therefore, the separation of the idea of a cause from that of a beginning of existence is plainly possible for the imagination.

3. Consequently, the actual separation of these objects is so far possible.

From the way the above argument is structured, we can notice that the premises are successively dependent on one another, such that premise one grounds the second, and the second grounds the conclusion. Premise (1) emphasizes the conceivability of the distinctness of the beginning of existence from the notion of a cause. Since reason can consciously confirm the distinctness of the two aforementioned notions in a manner that makes it capable of thinking of the former without the need of thinking of the latter, then we can imagine a thing coming into existence without a cause, premise (2). Hume then concludes from this imagination that the actual separation of the beginning of existence and a cause is thus possible, premise (3). Therefore, we can clearly see how premise (1) focuses on conceivability, which brings forth premise (2) that emphasizes imaginability, which in return brings forth the conclusion about metaphysical possibility.

On another hand, Hume uses a different disjunctive prepositional phrase to ensure the shift from the talk about conceivability and imagination. In the Treatise, he writes:

"Tis an establish'd maxim in metaphysics, that whatever the mind clearly conceives includes the idea of possible existence, *or in other words,* that nothing we imagine is absolutely impossible." (Treatise, I, ii, 2- emphasize added).

To use the conjunction "in other words", is to suggest an alike understanding stated in different terms. Therefore, in this excerpt, Hume conveys that conceivability is the same as imagination. Yablo (1993) seems to have a different interpretation, as he doubts that Hume is providing the same maxim twice. He argues that to claim that conceiving *X* carries the embedded idea of its possible existence, is different than to say that we can only imagine the possible (page 4). Assuming conceivability is the same as imagination, then this would render the shift from premise 2 to premise 3 a tautology. But this shouldn't affect the argument since Hume made it clear that he is using the terms interchangeably. Consequently, the epistemological modal power of the employed conceivability principle is still preserved and well employed. However, my own understanding of the difference between conceivability and imagination is that conceivability is wider and much more encompassing than imaginability. In other words, whatever is imaginable is conceivable, but the reverse doesn't hold as far as we conceive ideas that we cannot imagine. For example, we can understand and thus conceive concepts pertaining to mathematics, God, or a megagon without being able to imagine them. In this respect, I will argue that Hume might be offering two different arguments against the causal principle. The first depends solely on the comprehension of the ideas of becoming of existence and a producing agent, whereas the second relies on the imaginability of the scenario of beginning of existence without any cause. I will detail this distinction in my refutation of Hume. Furthermore,

from an epistemic perspective, a better and wiser understanding of Hume's move from the talk on conceivability to imaginability, would be recognized after understanding Hume's argument in grounding the conceivability principle itself. Hume employs imagination as a link between ideas and perception, and therefrom, between ideas and possible existence – the argument will be discussed in the relevant section. Consequently, we need to conceive an idea first, and then apply the conceivability test, having imagination as a core faculty to link between the conceived idea and its possible existence. Therefore, Hume's shift from the discussion of conceivability to imaginability is a well-established move and is consistent with his epistemology and understanding of the faculty of imagination.

But how does Hume employ the faculty of imagination to ground the possible existence of conceived ideas; and thus, providing a root for the conceivability principle? In the next chapter, I will explain the conceivability principle and clarify Hume's grounding of it to an extent that made him believe that the principle is an established maxim.

CHAPTER 4

ON CONCEIVABILITY ARGUMENTS

4.1. A General Briefing on Conceivability Principle & Arguments

     Under this title, I will be explaining the conceivability principle and its implications in modal epistemology. The principle has been used to ground the proofs of several arguments pertaining to different subjects in philosophy. It can be simply stated as such: whatever is conceivable to the mind is possible to exist. Therefore, conceivability arguments would then have the following structure (Mizrahi and Morrow, 2015):

1. It is conceivable that X (main premise)

2. Whatever is conceivable is metaphysically possible (major claim of the principle)

3. Therefore, it is metaphysically possible that X (conclusion)

     The argument is based on a single premise, a major claim that might be suppressed in some arguments, based on which the conclusion is derived. The crux behind it is that if something, or event, or any state of affairs, is regarded conceivable, then we have sufficient evidence to warrant its possibility. Furthermore, it is worth noting that some philosophers interpret that Hume holds another principle which is the "Inconceivability Principle". This principle holds that inconceivability implies impossibilities. This principle has different interpretations and has no consensus amongst philosophers (Lightner, *Hume on Conceivability and Inconceivability*). As for this paper, we will only endorse a version of

the Inconceivability Principle which is certainly accepted by Hume (e.g. Treatise 32); that what is contradictory is metaphysically impossible. However, these two principles are logically distinct from one another in a manner that one can accept the former and at the same time rejects the latter (Lightner, 115). In this paper, we will not address the Inconceivability Principle as it doesn't serve the purpose.

Furthermore, the conceivability principle has been vastly used to establish arguments in different fields in philosophy. In his paper "*The Medieval Origins of Conceivability Arguments*", Stephen Boulter (2011) provides samples of such arguments from leading scholars from distinct fields of philosophy; from which I list the following: (pages 3-6):

1) Chalmers's zombie objection to Physicalism.

2) Nagel's explanatory gap between the brain and qualia.

3) Quine's argument against Essentialism.

4) Wittgenstein on Necessity

5) Moore's refutation of Naturalism in Metaethics

6) Hume's argument against the necessity of the causal principle.

Moreover, the conceivability principle has been further developed by several philosophers. Then again, the efficacy of the principle to ground possibility has been a dispute amongst many of them. Some have fully endorsed the metaphysical possibilities underlined by the conclusions, others have accepted it with certain limitations and guidelines, and some have fully rejected it as a guide to possibility. For instance, Kripke and Putnam's theory of a posteriori necessities rejects propositions that are allegedly

conceived to be true but contradicting matters of fact (Putnam 1975, 233). Moreover, John

Stuart Mill is skeptical about this capability of conceivability and confirms that the

possibility of existence is related to things in themselves rather than to our ability to

conceive them (Mill 1874, book II, chapter V, section 6). On the other hand, David

Chalmers offers a detailed understanding of the principle and differentiates between

different kinds of conceivability (ideally conceivable, primarily conceivable, positively

conceivable, secondarily conceivable). In brief, the core of his argument is that something

is conceivable if it is logically coherent and void of any contradiction. Additionally,

Hume's understanding of the principle is wide and much more encompassing of all logical

possibilities, without any exception. As long as the conceived scenario is not self-

contradictory, then it is actually possible without any limitation or metaphysical barrier

hindering its actuality. Moreover, this actual possibility according to Hume is an

epistemological necessity whereby it is impossible to reject the actual possibility of

whatever that can be conceived by the mind. This epistemic necessity is clear when he says

in Treatise that "whatever can be conceiv'd by a clear and distinct idea necessarily implies

the possibility of existence" (page 43). In the passage below, I will demonstrate Hume's

firm belief regarding the establishment of the conceivability principle.

4.2. Hume's Argument for the Conceivability Principle

I will elucidate Hume's argument for grounding the conceivability principle, that

whatever is conceivable is actually possible. I will be using the term imagination and

conceivability as one as far as Hume uses them interchangeably in the scope of his

argument (at least). Hume's inference that the imagination grants us an epistemic power to

modal truths is cooperatively driven by three focal elements of his theory of mind, as

Dorsch explains in his article *Hume on the Imagination* (2015). These are:

1. His empiricist doctrine that all concepts are derived from perception.

2. His relationalism about perception.

3. His indirect realism about perception.

As Dorsch puts it, Hume's argument can be summarized as such (page 17):

1) Hume's Copy Principle: All simple ideas are copies of impressions.

2) Ideas can be conjoined in just the same way as impressions (since both have the same kind of awareness of objects and their features).

3) Thus, for each possible idea, there is a corresponding possible impression.

4) Thus, whatever is conceivable is possibly perceivable.

5) Perception is relational: whenever we have a perceptual experience, there exists an object that we are aware of.

6) Indirect Realism about perception: If perception implies its actual existence, then perceivability implies possible existence.

7) Therefore, whatever is conceivable is possible to exist.

In this argument, Hume is trying to base the second premise of his argument, vis-à-vis, the claim that whatever is possible in the imagination is also actually possible. The argument, as Dorsch explains, rests on three major doctrines that together form the

skeleton. These are an empiricist doctrine that bases our concepts into experience, relationalism that connects a perception with a respective concrete existing object, and indirect realism that adopts the view that we perceive the external world by our ideas and interpretations and not how it actually is (Hume is a skeptic at the end of the day!). In this manner, concepts are connected to the real world; and thus, have the idea of possible existence. The argument proceeds by confirming that all ideas we think of have origins in perception. Furthermore, at a phenomenological level, ideas and impressions are both flexible in the way they present themselves. Consequently, the different combinations of ideas arising from the imagination correspond to possible different impressions that perception can receive via experience. Thus, it is sound to conclude that for any possible idea there is a possible impression. Therefore, whatever is conceivable, and more precisely whatever is imaginable, is possible (call this C1). Now, we need to employ the principle of relationalism to relate the just deduced possibility (C1) to the real and tangible reality. Since to any perceptual experience, there exists a respective external tangible object that we are aware of, it follows that to any possible perceptual experience, there would exist a possible external object that we might be aware of (call this C2). Therefore, combining C1 and C2, we can conclude that whatever is imaginable, is actually possible.

Hence, applying empiricism with relationalism, Hume's claim that conceivability entails possibility can be easily established. The above argument, I believe, is sound and is sufficient to ground Hume's claim that whatever is possible for the imagination is actually possible.

4.3. Conceivability & the Principle of Separability

Furthermore, when Hume applies the conceivability principle to investigate the notion of causation, he applies it to both terms: cause and effect. This applicability of the principle involves a further principle of separability that has significant epistemic and metaphysical consequences. Upon the conceivability of the distinctness of cause and effect, Hume, thereby, deduces their separability in the understanding and imagination, as discussed earlier. Based on this, Hume then makes his move to establish the possibility of the actual separatedness of causes and effects. This method of proof relies on the principle of separability. This is attained by the conjoined operation of the necessity claim and of the conceivability thesis, as Boulter (2011) argues. The former is the claim pertaining to logical necessities such that its opposite is an impossibility. By logical necessity, Boulter means both the strict logical necessity, whose truth is related to pure laws of logic, and the semantical or conceptual necessity, whose truth is in virtue of definitions of non-logical terms (page 623). Boulter summarizes the principle of separability as such:

> "If one can conceive of X apart from Y because neither is included in the definition of the other, then X and Y are distinct entities and can exist apart from each other no matter how closely connected they might be. Conversely, if one cannot conceive of X apart from Y because one is included in the definition of the other, then X and Y are not distinct entities, and cannot exist apart from each other." (page 624).

From this principle Boulter argues that we can infer the below important claims (ibid):

1) We cannot reduce X to Y nor Y to X because X and Y are not identical.

2) We cannot infer the existence of the one from the existence of the other because either can exist without the other.

3) We cannot explain one in terms of the other because one can exist without the other.

4) We cannot consider X or Y to be part of the mind-independent essence of the other because neither is a part of the definition of the other.

These consequences allow Hume to safely conclude that:

1) Causes and effects cannot be reduced to one another,

2) We cannot infer the existence of an effect from the existence of a cause, and vice versa.

3) We cannot explain causes in terms of effects, and vice versa.

4) We cannot consider causes and effects to be mind-independent essences of one another.

Therefore, by employing the separability principle to the subject matter, we can conclude that causes and effects are conceived separable. From what has been said, we can conclude that Hume's argument is based on rigid philosophical principles: the necessity claim, the principle of separability which both come in favor for the third and mostly important: the conceivability principle. This comes to the closure of explaining Hume's critique of the causal principle and the fundamental conceivability principle employed.

In the next chapter, I will present the refutations to Hume's argument based on the conceivability theories in the literature. The headings would follow as such:

1- Conceivability principle and Hume's fork

2- On the conceivability of cause and effect

3- Arguments undermining imagination as a guide to possibility

4- Arguments rejecting imagination as a guide to possibility

5- Arguments qualifying imagination as a guide to possibility

My own stance: Imaginables that qualify as possible. This is my own critique of Hume's conceivability argument. I accept Imagination as a guide to possibility, but I argue that Hume misuses the faculty whereby he employs the test of imagination on things that aren't themselves the subject of a possible imaginative experience.

CHAPTER 5

REFUTATIONS

5.1. On the Conceivability Principle and Hume's Fork

As noted above, Hume considers that all knowable propositions are either matters of fact or relations of ideas. Then, we ought to question whether the conceivability principle falls under one of these categories or doubt its epistemic grounding. If it is neither matters of fact nor relations of ideas, then Hume's argument wouldn't be consistent with his own epistemology pertaining to knowable propositions. This is because if the principle is unknowable, then the conclusion would lack epistemic solidity that makes it vulnerable to refutations. So, does the "established maxim" belong to matters of fact? Or to relation of ideas? Or to something else?

At face value, the principle that whatever is conceivable is metaphysically possible seems to be pertaining to neither matter of fact nor relations of ideas. The principle cannot belong to the category of matter of fact because it is not gained by experience and does not narrate facts about the perceived reality. Furthermore, it doesn't relate ideas, nor it is known true by virtue of its meaning; thus, the principle does not belong to relations of ideas either. Therefore, the principle seems to stand on an epistemic void. How then can the Humean escape this accusation and ground the principle within the Fork?

There is a similar refutation to the Fork itself whereby the question of whether the Fork belongs to either of matter of fact or relations of ideas is similarly raised. Dicker

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defends the Fork by interpreting it in a manner to allow for relations of ideas that are not

analytical. I will utilize Dicker's strategy to defend the conceivability principle

encompassed within the Fork. For his purpose, Dicker writes:

> "Hume's own Fork… leaves open the possibility that some of these synthetic propositions may be knowable a priori. One such proposition may well be Hume's Fork itself – the proposition that all knowable propositions are either relations of ideas or matters of fact. For this proposition obviously does not assert or imply the existence of anything. Hume's Fork would then itself have to fall into the class of relations of ideas, since all of his matters of fact do assert or imply existence, and relations of ideas comprise the only other class of knowable propositions. But, while this result may surprise those who assume that Hume's relations of ideas are exactly the same as analytic propositions, it does seem acceptable. For although all analytic propositions are relations of ideas, the converse need not hold. Hume's relations of ideas do not have to be analytic: they need only be knowable a priori and not assert or imply existence." (Dicker 54).

The crux behind this argument is that Hume's relations of ideas may also include

propositions that are not only analytic, i.e. whose truth is known by virtue of its meaning.

Dicker argues indeed that all analytic statements are relations of ideas, but the converse

doesn't hold. Therefore, he concludes that not all relations of ides are analytic, they only

need to be knowable a priori and not assert or imply existence. I accept Dicker's defense,

but I will not adopt his later conclusion that relations of ideas do not assert or imply

existence, as this is beyond our discussion at this moment. By having a closer

comprehension of Hume's confirmation that "[relations of ideas] are discoverable by the

mere operation of thought, without dependence on what is anywhere existent in the

universe (Enquiry, 25)", we can confirm that Hume did not only adopt the criteria of "truth

by definition" to qualify propositions as relations of ideas. Consequently, in addition to

analytic statements, relations of ideas also include propositions that are not true by virtue of

their meaning, and are known independent from experience, by mere operation of thought. Hitherto, all epistemological propositions about human nature, reason, morality, and understanding that are known true by the operation of thought are encompassed within relations of ideas. And the conceivability principle is of such propositions, and thus stands safe from the alleged refutation.

5.2. On the Conceivability of Cause and Effect

A person might object that by definition a cause is a cause if it produces another object, namely an effect, and conversely an effect is an effect when it is produced by another entity, vis-à-vis by a cause; therefore, reason can never conceive a cause without conceiving an effect since these two concepts are necessarily conjoined by definition. This refutation mainly attacks the second premise of Hume's argument, that the ideas of cause and effect are conceived evidently distinct. The syllogism runs as follows:

1- A linguistic relation is an a priori statement that is necessarily true by definition (premise)

2- What is necessarily true by definition, is conceived to be conjoined necessarily by reason rather than distinct and separate (premise)

3- By definition, a cause is a thing that produces another, merely an effect (Definition)

4- From (1) & (3); therefore, the causal relation is an a priori statement that is necessarily true by definition (modus ponens)

5- From (2) & (4); thus, reason always conceives a necessary relation between cause and effect rather than conceiving them distinct and separate (Conclusion)

On behalf of Hume, I would argue that this refutation misses the point of his critique. When Hume discusses the necessary connection between causes and effects, he is investigating the nature of the actual relationship between what we consider as a cause and as an effect. In other words, he is analyzing the relation between what we think to be a producer, that which we call a cause, and what we think to be produced, that which we call an effect, as perceived and provided by experience, and not the linguistic relation between a cause and an effect. In this sense, the causal event is happening in the world between two things, and reason assigns the term "cause" to the producer, and the term "effect" to the newly existent object or state, and thereby reason is not just analyzing a linguistic relation between the former and the latter. In his Endnote [G], Hume clearly states that this objection begs the question and thus does not escape his critique of the causal principle. He states:

"Thus, if a cause be defined, that which produces any thing; it is easy to observe, that producing is synonymous to causing. In like manner, if a cause be defined, that by which any thing exists; this is liable to the same objection" (Enquiry, page 125).

Furthermore, Hume's analysis confirms that the linguistic relation between causes and effects is not portrayed by any form of necessity through experience, and thus we cannot simply project the linguistical necessity onto the metaphysical understanding and expect necessary correlations between causes and effects, and even worse claim that a necessary relation between causes and effects belongs to nature. Therefore, the refutation leaves the critique untouched as it restricts the subject under study on the linguistical relation between

the meaning of causes and effects, meanwhile the study should be about causes and effects as observed in nature. A thing cannot be a necessary cause for its effect just because we have defined causes and effects to be necessarily correlated. Let's observe fire burning cotton; reality provides us the experience of fire, cotton, and the event of burning, whereby it fails to provide any necessary connection as entailed by the mere definition of causes and effects. Thus, the fallacy of the above argument lies in projecting a semantical relation to reality and claiming that fire has a necessary quality of burning the cotton, instead of observing the type of connection between fire and the cotton as entirely provided by experience.

Moreover, the oddity in this reasoning is that we gain the knowledge of fire, cotton, and burning from experience, and then attribute a logical necessity to the nature of the event that is happening in reality. Consequently, the linguistic refutation fails to disprove Hume's premise that causes and effects are distinct and separate as it projects a logical and semantical relation of terms onto reality without bridging logical necessity to natural occurrences; meanwhile the study of causal relations should be understood by analyzing what experience provides of them, being the sole epistemic provider of such connections.

Furthermore, viewing the problem from another angle, assuming that the relation between causes and effects is necessary as their respective definitions suppose, I would argue that Hume's observation and causal analysis would still be valid. The question then becomes whether the perceived occurrences fall under this causal relation or are just events happening in nature. Following Hume's critique that experience does not provide any necessary connection in events, it becomes evident that experiential observations do not

correspond to the necessary relations as conveyed by the definitions of causes and effects. Therefore, the refutation, in order to stand against Hume's critique must prove that the perceived occurrences are indeed causes and effects such that the unperceived necessity is due to an intrinsic epistemic underdetermination. They have to provide a philosophy that proves the necessity of causal relations and at the same time explain how causation presents itself as a contingent affair in experience. It is either that causation has dual nature, contingent and necessary, a claim the proponents would reject; or that causation in itself is necessary, but it loses this necessity upon experience, as the different sensations get fragmented by the different senses. And hence, upon this latter view, causation is a necessary metaphysical connection, but the causal phenomenon looks fragmented due to the way experience is gained distinctly via the five senses. Yet this position does not rebut Hume because Hume's analysis not only tackles causation as a perceived phenomenon but also analyses causation from the perspective of a general principle without relying on any specific causal instance. As seen in Hume's summary, the argument starts by investigating the general distinct ideas of cause and effect, and then bases the possibility of an uncaused event on its imaginability. This mental scenario bases the metaphysical possibility for an uncaused event in the general sense and does not undermine an instant causal event happening at a certain point in time. The strength of Hume's argument is that it is not specific to any causal specificity, as it undermines the alleged necessity in the general sense; and thus, the latter opponent's position does not hold either.

One of the proponents of this refutation is Mary Shepherd. In the first section of Chapter one of her book, "*An Essay Upon the Relation of Cause and Effect*", Shepherd also

refutes Hume's claim that causes and effects are distinct. She confirms that the relation

between causes and effects is a priori and necessary by definition such that reason can

never conceive one without the other. She writes:

> "But Before examining into this notion concerning the possibility of effects being held in suspense, and then of being liable to begin their own existence, or, in Mr. Hume's words, "of the separation of the idea of a cause from that of a beginning of existence" it will be necessary to render the expressions in which it is conveyed more intelligible. This can in no way be done as long as the definition of the word effect presupposes a cause, for the supposition of the objection lie, in its being possible for effects to be held in suspense: but in order that this should be possible, the meaning of the word effect must be altered. Then, if the ideas are altered that lie under the term, according as the varied occasion seems to require, there can be no philosophy; and it never can be insisted on, that the effects, which are supposed to be conjoined with their causes at one period of time; and to require, in order to their exhibition, those causes or others; and to receive the name of effects, on account of requiring causes; can again, upon another occasion, not be effects, not require causes, be held in suspense, and be imagined capable of beginning their existence by themselves, without conjoining to them the distinct idea of any "productive principle". (31 – Shepherd, Mary, lady, John)

Shepherd's main argument is that Hume's claim that causes and effects are distinct

and can be conceived separately is only possible after a firm definition of a cause and an

effect. And since the definition of both ideas necessitates a necessary and analytic

conjoinment, it follows that Hume's postulate, in order to be true, requires an alteration of

the respective definitions, which is "sophistical" (page 28). Shepherd accuses Hume of

sophistry as he deliberately alters definitions to serve his own philosophy; she writes, "if

the ideas are altered that lie under the term, according as the varied occasion seems to

require, there can be no philosophy" (page 31). Furthermore, she emphasizes the oddity of

postulating a thing that is conceptually linked to another thing, and then claim they are

separate and distinct as far as reason conceives this possibility. She condemns the reasoning

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that allows figure '2' to be a sign signifying two units as its necessary composition, and then conceive it separate and distinct from those constituting units as if it stands by itself without the need for its composing elements.

The syllogism runs as follows:

1) Figure '2' is a necessary production of two units (premise)

2) Therefore, reason can never conceive '2' independent from its constituent units (from 1)

3) Reason can conceive '2' as a single independent figure independent from its constituents (premise)

4) Therefore, reason can conceive '2' as an independent figure (from 3)

5) 2 & 4 is an obvious contradiction (2&4 by conjunction)

This, as shown in (5), leads to an obvious contradiction, and therefore conceiving linguistically-conjoined objects to be separate not only fails to ground their actual separability, but also allows to accept "any contradictory scheme in the world", as Shepherd argues (Shepherd 31). She concludes, Hume's analysis of causation leads to accept a clear contradiction whereby reason conceives two necessary conjoined concepts to be separate and distinct. She writes:

> "Causes and their effects are so evidently distinct [as Hume analyses], that they may be imagined to be unconnected objects, that are not causes and effects, and to exist separately without a contradiction, though they are named expressly as signs of the ideas we have, that they are necessary to one another." (Shepherd 32).

I don't think her refutation succeeds for the following reason. Like the above refutation of claim that causes and effects are necessarily conjoined by definition, she falls into the same mistake of projecting definitions onto the metaphysics of causation; and thus, missing the point of Hume's critique.

Moreover, her example of figure '2' that she provided to emphasize the impossibility of conceiving the distinctness of two necessarily conjoined concepts, is a clear illustration that she misses Hume's point. Her example works only in a priori cases whereby reason can clearly identify necessary correlations between ideas, but it fails in cases of matters of fact whereby reason evidently falls short in recognizing connections between things. Reason is never able to define things existing in nature as it defines mathematical figures and terms and is incapable of drawing connections and conclusions from the former as much as it can with the latter. This distinction has been clearly administered by Hume as matters of fact and relations of ideas, such that the relations between the former are contingent as compared to the necessary correlations found in the latter. Thus, the hidden fallacy underneath Shepherd's example seems to be the confusion between those two categories, whereby she attributes necessarily correlations found in relations of ideas to matters of fact, without being meticulous about the fundamental Humean distinction between matters of fact and relations of ideas.

5.3. Arguments Undermining Imagination as A Guide to Possibility

Hither below, I will shed light on the major schools of thought and philosophies that undermine the epistemic capacity of imagination to ground metaphysical possibilities, as

inspired from the Routledge Handbook of Philosophy of Imagination (2016). I will also

show that these attempted refutations fail to rebut Hume's argument against the causal

principle.

5.3.1. Finest-Details Worlds

Peter Van Inwagen (1998) maintains that our imagination lacks the capacity to lead

us to our intended possibility. When we imagine, we imagine scenarios that lack grounding

to an entire possible world. For example, if we imagine a scientist winning a Noble Prize

for discovering transparent iron, are we really imagining, he ponders, a world having

transparent iron that has been discovered by a scientist, or are we confused about imagining

a world where scientists have been deceived for discovering a transparent iron rod. Since

we cannot decide which world this imaginative scenario refers to, we can't really claim that

we have imagined a possible world. Therefore, in order to retain confidence in the

capability of imagination to imagine a possible world, further details should be imagined in

the scenario. Van Inwagen's point is that we can't add enough detail to exclude the worlds

other than the targeted world. This is because there would always be a world corresponding

to the respective details that do not pertain to the targeted world, and the only way to get to

the intended world, Van Inwagen explains, is when we imagine "at a level of structural

detail comparable to that of the imaginings of condensed-matter physicists who are trying

to explain, say, the phenomenon of superconductivity" (page 79). If Inwagen is right, then

he is doubting the entire capacity of imagination to ground possibility, especially when

Hume's argument is taken into account. This is because Inwagen's understanding for

imagined-based possibility requires imagining a fully detailed world to its finest physical detail, whilst Hume's argument is based on pure understanding of the general notion of cause and effect. Consequently, Hume's argument wouldn't ground the possibility of its conclusion. But to imagine a world to its finest details would be overwhelming if not impossible. And practically speaking, it is firmly possible to imagine situations that are empirically possible without attention to the finest details. We can imagine the sun rising tomorrow without pondering earth's movement, and we still believe that this imagination is actually possible, if not real. Therefore, Inwagen's argument does not offer a serious refutation to Hume.

5.3.2. Stipulated Worlds

Mark Fiocco (2007) replies to Van Inwagen that we need not to imagine the world to its finest detail to reach the desired possible world; rather, the issue at stake is stipulating that world. Fiocco thinks that in order to have a possible world imagined, we just need to stipulate it, i.e. imagining it as assigned. Nevertheless, Fiocco concludes from this perspective that imagination will then fail to be an epistemic guide for possibility. This is because if we are given the freedom to stipulate the world we are imagining, then "any world whatsoever is modally imaginable" (page 375). In this case, we can both imagine a world with a possible state of affairs and a world with an impossible state of affairs; and thus, we cannot rely on imagination as a guide for possibility. If Fiocco is right, then Hume's critique would also fail. This is because, given Hume's conceivability argument, the imagined cause and effect are stipulated in the imagined scenario, and thus, as per

Fiocco, it cannot be a guide to the actual separability of causes and effects. However, it seems that Fiocco relies on a certain consideration of possible state of affairs, as those discoursed by Kripke's a posteriori necessity. Therefore, we should discuss how such a theory would affect Hume's argument, and how Hume would reply to it.

5.3.3. A Posteriori Necessity

One of the most prominent works considered to defeat conceivability arguments comes from the work of Saul Kripke's (1980) and Hilary Putnam's (1975) theory on a posteriori necessity. Nevertheless, Kripke has his own consideration on conceivability arguments as shall be examined in the heading below. However, the theory of a posteriori necessity states that statements about matters of fact, names, and origins are necessarily true, and thus conceiving them to be otherwise is no proof of their possibility. In this respect, imagination cannot be a fully trusted guide for metaphysical possibilities. In the case of matters of fact, a posteriori necessity pertaining to such propositions would be a claim supporting scientific essentialism, the view that things have essences that are necessary properties of things. Therefore, the attempt to imagine essences to be different is a mere illusion of the imagination that lacks any epistemic indication. If this is true, then Hume's argument would fail as it projects the possibility of altering matters of fact and of things to lose their essences, i.e. a cause not being a producing agent, and an effect not being produced by another agent. The Humean reply would be that this would be begging the question.

To claim that there are a posteriori necessities pertaining to things as they are in themselves, is to assume the subject matter under study. Hume's critique of the causal principle undermines any necessity pertaining to the nature of things; and thus, any claim that assumes any form of necessities whether causal or essential would be begging the question from this perspective. As long as we don't perceive any necessary connection between causes and effects and as long as concepts pertaining to causes are distinct from concepts pertaining to effects, then the thesis of a posteriori necessities is subject to the same critique. Therefore, the contention of a posteriori necessity fails to refute the basis of Hume's conceivability principle.

5.3.4. Mathematics

According to Hume, mathematical propositions fall under the category of relations of ideas that are necessary by definition. Consequently, it seems legitimate to argue that we can never imagine cases contradicting well established mathematical propositions. However, this is questionable by mere reflection on propositions that seem intuitively true yet rejected by mathematicians. A primary school student might imagine a greatest prime number without knowing that mathematicians have established a reductio ad absurdum proof for the impossibility of a greatest prime number. Furthermore, even though there is no established proof for Goldbach's conjecture (GC), the claim that every integer greater than two is equal to the sum of two primes, most mathematicians think is true. Nevertheless, we can imagine the possibility of its falsity. It seems that the ability to imagine such propositions may be driven by ignorance of their respective mathematical

proofs. But since we can imagine counter mathematical proofs, then we conclude that imagination might have misled us to false conclusions. If the proponents of this position are right then, in relevance to Hume's Fork, we can imagine relations of ideas to be otherwise; and thus, imagine the impossible. Therefore, imagination is not a trustworthy faculty for determining what is possible. On behalf of the Humean, I would stick tight to the philosophy that relations of ideas are necessarily true by definition, and thus will not jeopardize this belief in favor for the postulated imagined scenarios. The Humean then would claim that the reason behind imagining mathematical impossibilities lies within the imagined scenarios; such that the case under study is not imagined with sufficient clarity and distinctness to warrant the alleged possibility. The employed imagination would be the faculty of feigning and not the faculty responsible for modality, vis-à-vis conceivability.

5.3.5. *Philosophical Cases*

Furthermore, in some studied philosophical cases, imagination has also misled the thinker to possibilities that philosophers deem impossible. Time travel is thought to be a genuine possibility, yet it has been proven absurd by the works of David Lewis (1976) as it bears incoherence. Furthermore, science fiction is based on imaginary characters that according to Kripke's theory of origins are impossible (Kripke 1980; 2011, ch.3). This leads us to conclude that imagination may lead us to think possible of situations that philosophers consider absurd. I will not dwell into the arguments in favor or against both time travel and fictious characters, as I would defend Hume's conceivability principle by the same manner I did with the cases from mathematics. As long as propositions are clear

and distinct; only then we can apply the imaginability test. Therefore, upon unfolding the cases of time travel, a thinker will realize the hidden absurdities, in case any. Consequently, the problem isn't with the principle of conceivability in as much as it is in stipulating the needed effort to uncover any possible absurdity. And upon this thought process, if any absurdity isn't found; only then we can employ the conceivability principle, and thereby deduce the metaphysical possibilities. This leaves Hume's employment of the principle untouched.

5.4. Arguments that Qualify Imagination as A Guide to Possibility with Restrictions

5.4.1. The Kripkean Error Theory Strategy

Even though Kripke's a posteriori necessity principle is a formidable argument against Hume's critique of causation, Kripke thinks that we can still accept imagination's capacity to determine metaphysical possibilities within further considerations. This is known as "Kripke's error theory strategy" (Imagination and Modal Epistemology, 440). His proposal is that when we conclude the possibility of a counterfactual, we would be in fact misinterpreting the scenarios of imagination. When we imagine a scenario contradicting a reality, whether matters of fact, origins, or names, we aren't imagining an impossible situation; rather, we are imagining a different possible scenario and confuse it with the impossible one. Kung (2014) formulates Kripke's argument as such:

1. When we seem to and take ourselves to imagine a situation S that falsifies some a posteriori necessity N,

2. (Unimagined)We do not in fact imagine S.

3. (Confusion)We imagine a situation S' that we confuse for S.

4. (Possible) Situation S' is possible and consistent with N. (page 441)

Therefore, the position joins the trust in imagination as a guide to possibility along with an error theory of what we may imagine, as Kung concludes (page 441). With that being said, the below should be noted:

1) First, the Kripkean error theory is based on Kripke's account of a posteriori necessity, and since Hume rejects the latter as previously noted, we can also conclude that Hume's critique is saved from the error theory.

2) Second, the error theory might be more relevant as a possible refutation of Hume's critique of the problem of Induction than to his critique of causation as a general principle. This is because the imagined scenario contradicting an a posteriori necessity, as the theory stipulates, is specific and particular in its description rather than general and broad like the concept of causation.

3) Third, assume the Humean would accept the error theory, then does the theory succeed in rejecting Hume's critique for certainty? Simply No. This is because, the theory concludes that the imagined scenario of a counterfactual might be still valid in another possible world. Accordingly, Hume's critique would still be valid in some possible world. Now, this leads us to two conclusions. First, this would still be a case for the Humean, yet with a weaker version of the critique. Secondly, the theorization of the critique of the causal principle is made general without pertaining to any specific causal event; therefore, if the critique is possible in some possible world, then it should be possible in all possible worlds due to its authentic

universality. Consequently, the Kripkean error theory is not a strong theory against Hume's critique of the causal principle.

5.4.2. Model of Modal Error Theory

Another theory based on Kripke's work is Yablo's model of modal error theory. Stephan Yablo (1993) accepts Kripke's error theory and confirms that a certain kind of imagining is a guide to possibility. However, he departs from Kripke in two different manners. First, he concedes that imagination is a guide to possibility when we imagine a situation of which P is held to be a true description of the scenario imagined (ibid, page 443). In this manner, imagination depicts the "appearance of possibility" whereby imagining an object O makes it seem that O is possible. Second, Yablo, as opposed to Kripke, agrees that sometimes imagination may lead us to envision the impossible, and thus is not an infallible guide to possibility. Nevertheless, he emphasizes when imagination misleads us to possibility, it does so in a predictable manner. Therefore, he formulates a model of modal error, that can be illustrated as such:

Let P be some impossible proposition that can be imagined. If the following three claims are true:

1. *An actual fact:* Q;

2. *A Modal Fact:* If Q then necessarily not-P;

3. That you find P imaginable is explained by your unawareness/denial that (1), and/or your unawareness/denial that 2,

then Q is a modal defeater. (Imagination and Modal Epistemology, page 443)

By modal defeater, Yablo means that if the conditions from (1) till (3) are satisfied then we can have legitimate doubt on the possibility of (P).   The notion here is that modal error is explained by ignorance of a truth, either of some actual-world fact (1) or some modal fact (2). If we imagine an impossible proposition (P) that contradicts an actual fact (Q), then this imagination can be explained by unawareness/denial of the fact (Q) or that (P) contradicts that actual fact (Q). Thus, premises 1 till 3 would provide reasonable doubt in the modality of the imagined scenario.

Since this theory is based on Kripke's work, then my previous defenses of the critique would still be valid. Secondly, the theory rests on an essential claim that Hume rejects. Premise (3) assumes that we can imagine an impossible state of affairs, a claim that Hume explicitly denies. Nevertheless, there might be an equivocation on the notion of "impossibility" under study, whereby the theory refers by the "impossible" to an event opposing a matter of fact; on the other hand, Hume uses "impossibility" in the logical sense and refers to what is logically contradictory. According to the Humean, using "impossibility" in the former use would be begging the question, since it would be assuming that all matters of fact are necessarily true – the assumption that Hume rejects by administering his critique of the causal principle. However, giving the theory credit, it is worth to investigate whether Hume's critique would pass this test. For this sake, assume that P is the proposition: "Fire does not burn carpets", then it follows that:

1. An actual fact: fire burning a carpet
2. A modal fact: if "fire burning a carpet" is true, then necessarily P would be false.

3. P is possible by the imagination, à la Hume. Thus:

4. "fire burning the carpet" is denied or unaware of by the Humean, or:

5. "fire burning a carpet" is true, then necessarily a "fire does not burn carpets" would be false; is denied or being unaware of by the Humean.

This, as I will show, would be begging the question from a Humean perspective. Premise (4) cannot be the intended justification since it is initially postulated as the actual fact (Q). This leaves us with premise (5). It is false that Humeans are unaware of premise (5), rather they actually reject it. This is because the event "fire burning a carpet" does not by any means necessarily negate the possibility of an uncaused event. Secondly, "fire burning a carpet", according to the Humeans, isn't necessarily true, and thus cannot epistemically preclude any other scenario by necessity. Therefore, Yablo's test fails to account for Hume's critique.

5.4.3. Two-Dimensional Semantics Solutions

Following Kripke's work on a posteriori necessity, assuming its truth, we still have an internal impulse to think that the imagined counterfactual is still an actual possibility. Two-dimensionalism investigates this impulse (imagination and modal epistemology, page 443). Two-dimensional semantics refers to the framework that emphasizes the a priori aspect of meaning by which a statement has two senses: a primary intension and a secondary intension. This theory has been developed by Frank Jackson (1998) and David Chalmers (1996, 2002, 2009), and aims to settle the possibility of discovering a necessary

truth a posteriori by empirical means. The investigations are semantical and are beyond the scope of this paper. However, the relevant aspect of this theory to conceivability arguments is that it tries to investigate the temptation to believe in the possibilities of imagined cases that Kripke's error theory deems as impossible. Therefore, it tries to save the conceivability principle from objections raised by propositions having a posteriori necessities. Substantially, a statement has a true primary intension if we can imagine a case that is considered as actual in which the statement is true. In other words, to imagine a scenario as actual is to imagine it as true in the actual world. On the other hand, the secondary intension comes along with Kripke's comprehension of the necessary a posteriori. It is thus associated with imagining counterfactuals, whereby we hold firm to our beliefs about the actual world, and at the same time imagine a non-actual possible world. For instance, "water is H2O" has two dimensions:

1) Primary intension: which is the a posteriori component that is not necessary to the proposition and thus can be conceived to be different. In this case, the referent "water" is the contingent element that denotes the phenomenal watery characteristics. In this sense, we can conceive another liquid having a similar watery characteristics but isn't H2O.

2) Secondary intension: which is the necessary aspect of the sentence. That the transparent liquid we call water is "H2O", has two hydrogen atoms and one oxygen atom that fundamentally, vis-à-vis necessarily, gives water its characteristics. From this perspective, we can sense the essentialist philosophy

behind this position as it relies on the notion of a posteriori necessities inherited in things.

We will not discuss the relation between essentialism and causation as it's beyond the scope of our thesis; yet, Hume's critique rejects this essentialist philosophy since nothing we can perceive of things has an impression of necessity, and that nothing in proposition of matters of fact shows a relation of containment between its subject and its predicate. That "H2O is water" has two distinct concepts; which thus, can be perceived independently from one another. Therefore, any argument based on two-dimensionalism to reject Hume's critique of causation would fail to achieve its aim. Now let's conduct the below simulation to see how proponents of two-dimensionalism theorizing against Hume's critique would fail in their project.

1) Two-dimensional theorists either accept the necessity of the causal principle or don't. (premise)

2) If they do not accept causal necessity, then this either would come in parallel with Hume's conclusion, or secondary intension would be false (premise)

3) If secondary intension is false, then two-dimensionalism fails (definition)

4) Therefore, two-dimensional theorists must accept causal necessities (from 2&3 modus ponens)

5) If they accept causal necessities, then the necessity would be best understood by the secondary intension that would necessitate specific effects following from specific causes. (premise)

6) Assume the proposition: "X must be a cause for Y to exist" (premise)

7) Conceivability Proposition P: "We can conceive Y to exist without conceiving any cause" (applying conceivability principle)

8) By primary intension and by premise (4): P is true only if there is another cause alpha for Y.

9) By secondary intention, P is necessarily false. (secondary intension of P)

10) Therefore, P is conditionally true and necessarily false, which is a contradiction.

Hitherto, any possible rejection to Hume's critique of causation based on two-dimensionalism would fail.

5.4.4. Imagery-Based Strategies

In this perspective, imagination is fundamentally imagistic in the sense it is phenomenologically similar to perception and is a firm ground for metaphysical possibility. In this section we will relate three recent discussions of imagistic imagination as a guide to possibility from the works of Christopher Peacoke, Sydney Shoemaker, and Peter Kung, as inspired by Kung's work (2016). Peacocke and Shoemaker understand imagining as imagining experiences. When a person is visually imagining an object, he/she is imagining from the inside seeing that object. Imagining a thing from inside means imagining a perceiver viewing that object, and thus whenever we imagine an object, we imagine it perceived (Imagination and modal epistemology, page 445) This type of imagining is called imagistic imagination, and since the imagination involves a perceiver, then it is a content of a possible experience. Therefore, imagistic imagination is a trusted guide for possibility. On the other hand, non-imagistic imagination fails to ground possibilities as Peacocke and

Kung argue. When one removes the perceiver from the imagining episode, the scene becomes unperceived; and thus, is not a content of a determined possible experience; and therefore, cannot be a ground of possibility as they argue. In other words, the content of an imagined scenario may encompass more than what is 'depicted' in the image (Peacocke 1985). To make this clear, he introduces the notion of S-imagined, whereby S resembles 'supposition'. Say in an imaginative episode, we imagine a suitcase, and in another episode, we imagine a cat hidden behind a suitcase, as Peacocke elaborates. The mental image for the suitcase is the same for both episodes, yet the content is different. This difference is explained by S-imagination or S-imagined content, as Peacocke clarifies. Consequently, we cannot really ground the possibility behind the imagery as we can't be certain to which episode the mental imagery corresponds to. Assuming the theory is true, how would this affect Hume's conceivability argument undermining the necessity of causation?

The root of the argument is that if there is no perceiver in the imagined scenario, then we cannot rely on imagination to ground its possibility. So, this leads us to ask: Does Hume's conceivability argument against the necessity of the causal principle require a perceiver?

Well, since we can't perceive any causal connection within experience, as Hume shows, then we cannot imagine a perceiver perceiving causal connections. Unless that perceiver has god-like-powers to perceive powers; but in this case, the scenario would also fail because we won't be able to ground a humanly epistemic modality. Therefore, Hume's conceivability argument fails this imagery-based strategy. However, if the perceiver is needed to unfold S-imagined scenarios having the same imagined images, such that the perceiver can precisely identify the desired case from its conjugate, then the perceiver isn't needed to ground the possibility from a Humean perspective. This is because, as long as

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both scenarios are coherently imagined, whether they have the same mental imagery or not, then both would be possible. To understand the relation between this theory and Hume's conceivability argument, observe the below argument:

1- Scenario 1: A thing beginning into existence without a cause.

2- Scenario 2: A thing beginning into existence with an unperceived cause.

3- The mental imagery for both scenarios would be the same: a thing directly presenting in the imagination without imaging any cause.

Now, according to the authors, since we have the same mental imagery corresponding to different scenarios, then we can't really know to which scenario the mental imagery is referring to. Thus, we can't conclude the possibility of either of the scenarios. On behalf of Hume, I would argue that as long as we can coherently conceive a thing presenting itself without the need of any other cause, therefore, we can safely deduce the possibility of any scenario the mental imagery is referring to. Consequently, Hume's argument is still valid.

With a similar analysis to Peacocke and Shoemaker, Kung (2010) differentiates between basic imagistic content of imagination and non-basic content. The former refers to what our imagery systems are configured to represent; whereas, the latter refers to the presented element of an imagery. Furthermore, he agrees with Peacocke that there is a non-imagistic element which is the unpresented content of an imagistic episode. In case of the cat hidden behind a suitcase episode, the basic content is the rectangular object representing a suitcase, the non-basic content is that this rectangular object is a suitcase, and the non-imagistic content is the hidden cat behind the suitcase. Kung, moreover, names the non-basic imagistic content and non-imagistic content "assigned content". Furthermore, Kung considers that only the basic imagistic content can serve as a guide for possibility, whereas,

the assigned content, whether the non-basic or non-imagistic, cannot, on its own, be a guide

for possibility. This is because, the assigned content isn't assertive and definitive in what

they represent since the same assigned content may correspond to several episodes. Kung

says that we have a great deal of power to postulate an unvisualized "backstory" to what we

visualize. This indicates that there is no constraint against the mental imageries, and if there

is, the only constraint would be certainty of the episode. In other words, we can visualize

whatever in the backstory that we aren't definitely certain is false. Though we have a

justifiable belief that Wojtyla is John Saint Paul II, yet we aren't absolutely certain of it,

and therefore we can imagine a possibility that it may be false (Routledge 447). Kung

continues to argue that since lack of certainty is not an epistemic credential, thus backstory

imagining is not, by itself, an evidence for possibility. Hence, even though we can imagine

in the backstory that Wojtyla is not John Paul II (rejecting Kripke's error theory), yet this

by no means is an evidence for its possibility. Consequently, according to Kung, it is

reasonable to reject imageries based on assigned content alone as a proof for metaphysical

possibilities. Similarly, this won't succeed in devaluing Hume's critique due to the same

reasons discussed above. Mainly, the Humean reply would be, as long as the mental

imageries are coherent, then any scenario reflected by those imageries would be possible.

5.4.5. Rational Reflection Strategies

Such strategies stress the capability to rationally reflect on imagined scenarios to

uncover inconsistency or incoherence. These are present in the works of Chalmers and

Jackson (2001), Chalmers (2002) on negative conceivability, Geirsson (2005), Levin

(2011), and Ichikawa and Jarvis (2012). I will briefly discuss Ichikawa and Jarvis's stance of rational reflection in modal epistemology. Their strategy is that "coherent imagining is a guide to conceptual possibility, and that suitably constrained, conceptual possibility is a guide to metaphysical possibility" (Routledge 447).

In their terminology, a conceptually possible proposition is a proposition that does not conceptually result in an absurdity. On the other hand, a proposition is metaphysically possible if it is conceptually possible and at the same time it does not falsify facts of the actual world. In this respect, they propose to focus our capacity to identify conceptual coherence on propositions that do not entail falsity about matters of fact. In order to identify conceptual coherence, one ought to have confidence in the ability to rationally reflect on imaginings to uncover hidden absurdities. Once we fail to find any absurdity, a person can then safely conclude the absence of any incongruity (Ichikawa and Jarvis 2012, 153). This would be begging the question according to Hume. This is because they already precluded possibilities contradicting facts of the world in their criteria of assessment, whereas, according to Hume, these propositions are the ones subject to the conceivability principle.

5.5. Arguments Rejecting Imagination as A Guide to Possibility

One of the most interesting and intricate refutations of the conceivability principle comes from the work of Moti Mizrahi and David R. Morrow (2014) in their paper "Does Conceivability Entail Metaphysical Possibility". They challenge this claim from two perspectives and argue that conceivability shall only be considered as prima facie evidence for possibility rather than a firm criteria as advocated by the proponents of the

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conceivability principle. The first refutation contends that it is possible that the

conceivability principle is false, while the second maintains that it is possible that the

conceivability principle is necessarily false. In their paper they explain Chalmers's notion

of Weak Modal Rationalism (WMR) and focus on a conceivability principle that entails

primary possibility from primary conceivability. A proposition P is primarily conceivable

when it is conceivable that P is actually the case; whereas, P is said to be primarily possible

if its primary intension is true in some possible world, as Chalmers sets those terms (Does

Conceivability Entail Possibility, p. 164). For sake of consistency, I will proceed in

explaining their refutation by replacing "WMR" with "conceivability principle" and assess

whether they succeed in making their point.

5.5.1. Why It Is Possible That the Conceivability Principle Is False?

Mizrahi and Morrow's argument shows that the conceivability principle is self-

refuting, and upon scrutiny leads to a contradiction. Furthermore, it employs axiom S5 of

modal logic as proposed by Lewis and Langford (1932) to achieve its aim (Hughes, 1996).

S5 states that if something is possibly true, then it is necessary that it is possibly true; here

below is represented by $\Diamond p \rightarrow \Box \Diamond p$. The idea anticipated is that if there is a possible world

in which a statement p is true, then that world's existence becomes a necessity for the

truthfulness of p; thus, it is necessarily possible that proposition p is true. Mizrahi and

Morrow's (2014) syllogism runs as follows (page 4):

1) The conceivability principle is true (assumption for reduction)

2) Thus, if it is conceivable that the conceivability principle is false, then it is possible that conceivability principle is false (from 1)

3) It is conceivable that the conceivability principle is false [premise]

4) Then, it is possible that conceivability principle is false (from 2&3, modus ponens)

5) If it is possible that conceivability principle is false, then it is necessarily possible that conceivability principle is false (S5: $\Diamond p \rightarrow \Box \Diamond p$)

6) Thus, it is necessarily possible that the conceivability principle is false (from 4&5 modus ponens)

7) If it is necessarily possible that the conceivability principle is false, then the conceivability is not conclusive evidence for possibility [premise]

8) Conceivability is not conclusive evidence for possibility (from 6&7 modus ponens)

9) But if the conceivability principle is true, then conceivability is conclusive evidence for possibility (from 1)

10) Conceivability is conclusive evidence for possibility (1&9 modus ponens)

11) Conceivability is and is not conclusive evidence for possibility (from 8&10 conjunction)

12) Therefore, the conceivability principle is false (reductio)

The soundness of this argument depends on premises 3&7, and in what follows I will discuss the authors' vindication of the respective premises. I do not have any criticism on their defense of the seventh premise, so I will be focusing on their defense of the third premise. For further info on the seventh premise, please refer to the end notes[i].

Premise 3 is an existential claim that asserts that the conceivability principle is possibly false. To vindicate the premise, we should describe a world where the conceivability principle does not stand as a sound principle. The authors suggest an imaginable world where beings have distorted modal intuitions that allow them to consider particular classes of metaphysically impossible state of affairs to be possible. In such a world, the authors conclude, the conceivability principle would be false. They then raise a possible refutation by proponents which disputes that those modally impaired beings are not truly conceiving impossible state of affairs; they deem to be doing so, but they are not. This objection, they argue, renders the principle a tautology, because it would be implying that one has not successfully conceived of a state of affairs unless that state of affairs is legitimately metaphysically possible. I argue that the authors' defense of the third premise by means of postulating modally impaired beings fails to ground their argument because it leads to a contradiction. My refutation runs as follows:

1) We can conceive of modally impaired beings (assumption for reductio)

2) Modally impaired beings can conceive the impossible to be possible (definition)

3) Whatever is conceivable is possible (conceivability principle)

4) Modally impaired beings are possible (from 1&3 modus ponens)

5) It is possible to conceive the impossible (from 2&4 modus ponens)

6) It is false that whatever is conceivable is possible (from 5)

7) It is both false and true that whatever is conceivable is possible (from 3&6)

8) Therefore, it is false that the conceivability principle can be conceived to be false.

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This leads to an obvious contradiction, and thus the initial assumption for reduction, that modally impaired beings are possible, is false. Therefore, the authors cannot ground their argument based on the possibility of impaired beings as this leads to a contradiction. A proponent for the authors' claim might reject my argument by saying that we need not to accept the third premise in order for the scenario of the modally impaired beings to be possible. We don't need to claim that '*whatever*' is conceivable is possible to make the defense of the third premise sound. It is sufficient, an authors' friend might argue, that modally impaired beings are possible; but then, the latter are only possible either by the conceivability principle, which the authors reject, or by another principle that they must demonstrate. Indeed, they suggest a weaker form of conceivability argument, "Defeasible Modern Rationalism"; the view that conceivability constitutes only prima facie evidence (not conclusive evidence) for possibility. By prima facie evidence, Mizrahi and Morrow mean that an argument is defeasibly cogent, such that it is considered cogent at face value, until defeated by evidence. They conclude that the only possible rebutting defeater is some logically contingent metaphysical law that precludes all possible worlds in which the conclusion of an argument under study is true (page 11). But since we have no access to metaphysical laws; therefore, we can't really assess the cogency of any conceivability argument, as the authors confess. Consequently, we can't confirm the possibility of modally impaired beings under any principle beyond the conceivability principle; and thus, their defense of the third premise fails.

5.5.2. Why It Is Possible That Conceivability Principle Is Necessarily False?

Mizrahi and Morrow argue from a different perspective that the principle at stake can be proven to be necessarily false. And this would suffice to undermine its epistemic credentials to know possibilities. They start from the 3rd premise stated above yet with a different vindication. They postulate the possibility of brute metaphysical laws that would impede some possible worlds that do not breach matters of fact, or even a posteriori necessities, and are not logically self-refuting. Consequently, they argue, if there were brute metaphysical laws, then the conceivability principle would be false, as we can conceive of possible worlds that are not possible (ibid, page 7)

The argument can be framed as such:

1) Imagine there exists a <u>Spinozisitc deity</u>; then based on this assumption, there would only be one possible necessary world. This is because the actions of a perfect being follows necessarily from its attributes, and thus there would be no other possible world from the present one.

2) If a Spinozistic deity is possible, then it is possible that the conceivability principle is necessarily false because there is a brute metaphysical law according to which there are no possible worlds other than the real and necessary one.

3) Therefore, the conceivability principle is false, because we can imagine a world whereby no other worlds are further possible, nevertheless these could be imagined.

4) Consequently, the conceivability principle would be false since we can imagine worlds that aren't possible.

Their syllogism runs as follows, and for the sake of consistency I replaced "WMR" with "Conceivability principle"

1) The Conceivability principle is true [assumption for reductio]

2) If it is conceivable that the conceivability principle is necessarily false, then it is possible that conceivability principle is necessarily false (from 1)

3) It is conceivable that the principle is necessarily false [premise]

4) It is possible that the principle is necessarily false (from 2&3 modus ponens)

5) If it is possible that the conceivability principle is necessarily false, then the principle is false (by S5: $\Diamond\Box p \rightarrow p$ is provable from $p \rightarrow \Box\Diamond p$] (James Garson, Modal Logic for Philosophers, Cambridge University Press, p.43)

6) The conceivability principle is false (from 4&5)

7) The conceivability principle is false and is true (1&6 by conjunction)

The argument is a *reductio ad absurdum* that shows that the assumption of the truth of the conceivability principle leads to a contradiction. The strategy rests upon the modal logic axiom S5 that confirms that whatever is possibly necessary the case is necessarily the case- premise 5 above. And since, as the authors argue, it is possible for the conceivability principle to be necessarily false, then it follows, by S5, that the principle is false. But why might the conceivability principle be necessarily false? The necessity of the falsehood of the conceivability principle is associated with some metaphysical brute laws that determine what is possible. If metaphysical laws are true, then it is false that whatever is conceivable is possible. Therefore, conceiving that the conceivability principle is necessarily false is conditioned by the existence of metaphysical brute laws. In this case, the authors investigate the following possibilities (ibid, page 8):

1) If a Spinozistic deity is possible, then there are brute metaphysical laws that preclude all possible worlds beyond the current one. In this case, it would be false that whatever is conceivable is possible since the deity controls the realm of possibilities.

2) If a Spinozistic deity is impossible, then there should also be some metaphysical brute law that waives this possibility,

3) Thus, in both cases, the possibility or non-possibility of a spinozistic deity, it will still be possible to have metaphysical brute laws that would corroborate premise 3.

I tend to disagree with the authors from several perspectives. First, I think that the third premise is simply false. We cannot conceive that the conceivability principle is necessarily false. To conceive something to be necessarily the case is to have a direct comprehension of this necessity, and this seems inapplicable in our case. For example, we can conceive that a squared-circle is necessarily a false geometrical figure, yet we can still accept the conceivability of whether elephants can actually fly. If something is conceived necessarily the case, then there is no need for further establishment of this necessity, as necessity is conceived clearly and distinctly, unless the necessity under study isn't clear to the mind and needs further proof or demonstration. In such a case, necessity would not be conceived as a direct impression but would only present itself as a possibility that requires further establishment. For example, we cannot directly conceive the necessity of the Pythagorean theorem in the same way we can directly conceive the necessity of three-sidedness of a triangle, but the necessity of the theorem is well-established. With this being said, then "whatever is conceivable is possible" does not seem to be necessarily false from

the first impression without further demonstration. Therefore, the claim that we can conceive the principle to be necessarily false is simply false. On the other hand, it is still possible that "whatever is conceivable is possible" is a false axiom. Consequently, given how the argument is structured the conclusion is not sound due to the falsity of the third premise. However, to be charitable with the argument, I offer two corrections for its premises.

The first is a correction to the third premise and has the following formulation: "It is conceivable that the conceivability principle is possibly necessary false". The syllogism would be altered as follows:

1) The conceivability principle is true [assumption for reductio]

2) If it is conceivable that the conceivability principle is possibly necessary false, then it is possible that conceivability principle is possibly necessary false (from 1)

3) It is conceivable that the principle is possibly necessary false [premise]

4) It is possible that the principle is possibly necessary false (from 2&3 modus ponens)

5) It is possible that the principle is necessarily false (additional premise - from 4, by S4 $\Diamond\Diamond p \rightarrow \Diamond p$)

6) If it is possible that the conceivability principle is necessarily false, then the principle is false (by S5: $\Diamond\Box p \rightarrow p$ is provable from $p \rightarrow \Box\Diamond p$] (James Garson, Modal Logic for Philosophers, Cambridge University Press, p.43)

7) The conceivability principle is false (from 4&5)

8) The conceivability principle is false and is true (1&6 by conjunction)

9) Therefore, the conceivability principle is false.

Another way of restructuring the argument is by directly employing the fifth premise above: "it is possible that the conceivability principle is false". In any case, this would save the argument from my previous critique. However, I still believe that there is an underlying error in the employment of S5. S5 is an axiom in modal logic that states that whatever is possibly necessary is necessary. This might sound counter intuitive since we cannot clearly see how a thing is necessarily the case from the mere possibility of its necessity. This is similar to the ontological argument for the existence of God, whereby the necessity of the existence of a necessary being is proved from its possibility. A possible justification of S5 in this regard, is that if it is the case that P is possibly necessary, then P is necessary in at least one possible world. Now, if P is necessary in one possible world, then it is necessary in all worlds. Unfortunately, we cannot provide an in-depth understating of S5 of its formulation, applicability, and implications, as this is beyond the scope of this paper. Yet, I will provide my own reflections of the axiom and show that the authors are misusing it. It is far-fetched that whatever is possibly necessary is necessarily the case, yet in some cases this might be right as I will show below.

Initially, let me try to unfold the notion of possibly necessary employed by S5. I can think of two understandings of the notion of possibly necessary as such:

1) X is possibly necessary in the sense that X might be necessary and maybe not. In this case, we are not sure about the necessity of X. In logic, we can describe the scenario as such: there is a world W' where X is true, but there is no sufficient evidence about the modality of X.

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2) The second understanding confirms that X is necessarily true in some possible

   world W''. If W'' exists, then X would be necessarily true. In this case, X is

   hypothetically necessary, but this necessity becomes actual if world W'' exists.

I hardly believe that the first explanation is the one intended, as we cannot be

skeptical about the necessity of X and at the same time aim prove it by means of S5.

With this being said, the second understanding would better clarify what is meant by

possibly necessary in our context of discussion.

S5 makes sense when necessity is assumed to be universal in a metalogical

framework. In a universal understanding of necessity, the rules of necessity are

applicable in all possible worlds. What makes X necessary in W, would also make it

necessary in W', W''...W^n if the set of conditions arising for its necessity are

universally and equally present in the relevant possible worlds. In this regard, assume *W*

to be the set of all possible worlds, and assume Z to be possibly necessary. Now, based

on the this and based on the second understanding of possibly necessary, Z is therefore

necessary in some possible world, let's say W'''. Therefore, W''' belongs to *W*. Thus, Z

is necessary in *W,* and since necessity is universal, Z is also necessary in any other

possible world once the set of conditions of necessity are met. Therefore, since Z is

necessary in some possible world, it will also be necessary in all possible worlds. Note

that this conclusion of S5 is only applicable based on the assumption that necessity is

universal, what makes it necessary in a possible world makes it necessary in any other

possible world if the conditions of necessity are met. Otherwise, if the rules of necessity

are not universal, then what qualifies Z to be necessarily in W' might not qualify it to

be necessarily in W''. For instance, the sum of the angles of a triangle is necessarily 180 degrees in a Euclidian geometry. This necessity does not hold any more in other types of geometry. We would be having other conclusions that also follow necessarily from each set of conditions governing the rules of geometry. In a hyperbolic geometry, the sum of angles is less than 180 degrees, whereby its more than 180 degrees in a spherical geometry (Johnson & Shlomo Libeskind, page 10 and page 31 respectively). The point at stake here is that in any Euclidean geometry, the sum of angles of a triangle will always be 180 degrees, and will always be less than this value in a hyperbolic geometry, and always more than this value in a spherical geometry. This is a relative conditional necessity that stipulates the necessity of a certain truth once the relevant conditions are met. And since the rules of necessity might differ in each possible world, e.g. Euclidean and non-Euclidean geometry, this falsifies that whatever is necessary in a possible world will be necessary in all possible worlds.

However, there is a constant necessity in all geometrical worlds that all triangles are three-sided. If this is true, then we do have knowledge of necessities that are in nature universally the case, vis-à-vis necessarily necessary. Therefore, if p belongs to such types of necessities, then if p is necessary in a possible world, it will also be necessary in all possible worlds. Thus, S5 holds true in such cases. The universality in this perspective is due to the necessary characteristics that belong to the identity of a thing that makes it what it is. Therefore, these characteristics are always conjoined to a thing and will always contribute to the same consequences necessarily. For instance, alternating the signs of reciprocals of positive integers produces a convergent series that

is equal to ln(2). This series will always converge to ln(2) in any possible world, because the conclusion follows necessarily from the relation of its constituents. Therefore, S5 clearly applies in this situation: if the series is possibly necessary, then it is necessarily the case. The series is necessary in a possible world, and since the necessity is due to the relation between its constituents, the series will therefore necessarily converge to ln(2) in any possible world; and thus, the series is necessarily true. However, it is out of topic to investigate propositions having universal necessities versus propositions having conditional necessities; nevertheless, I have properly made this distinction and mildly investigated how each types of necessities relate to S5. The next step is to investigate how would the conceivability principle relate to S5.

Going back to the argument raised by the authors, below is a briefing on their strategy to prove the falsity of the conceivability principle, based on which I shall clearly indicate their fallacy.

1) Conceivability Principle: Whatever is conceivable is possible (definition)

2) It is possible that the conceivability principle is necessarily false (premise).

3) Whatever is possibly necessary false is false (S5)

4) Therefore, the conceivability principle is false (conclusion)

The argument is based on one premise and on the application of S5. As shown above, S5 makes sense in some conceptions of necessity that are universal. Whatever is necessarily the case in at least one possible world, is also necessary in all possible worlds; and thus, is necessarily the case. We have demonstrated examples whereby this axiom is proven valid, and another example that disproves the axiom. In relative necessities, e.g. the

sum of angles in a triangle, their truth is not only based on their definitions but also relies on certain conditions that contribute to the necessity. And such conditions may vary in the different possible worlds. On the other hand, universal necessities are necessarily necessary in any world since they depend on what makes a thing what it is; and thus, are always necessarily the case. From what has been said, the argument is valid only if the notion of necessity employed in the second premise is universal. To corroborate this premise, the authors provided a world whereby the conceivability principle is necessarily false. Below is a reformulation of the argument from my own understanding.

1) Brute metaphysical laws necessitate what there is (definition)

2) If there are necessary laws, then it is impossible for whatever is conceived to be possible, since possibilities are conditioned by necessary laws and not by conceivability (premise).

3) Condition 1: Brute metaphysical laws are possible (premise).

4) It is necessarily false that whatever is conceivable is possible (from 2&3)

5) Condition 2: Brute metaphysical laws are impossible (premise)

6) Therefore, there should be another set of necessary laws that made brute metaphysical laws impossible (from 5)

7) It is necessarily false that whatever is conceivable is possible (from 2&5).

The authors mention only these two conditions, but there is another third condition where brute metaphysical laws simply don't exist. In such a world, there is no element of necessity prohibiting the necessarily existence of brute laws. In this case, the argument wouldn't be sound, since it hinges on the element of necessity as elaborated

above. But this will not affect the argument since it is sufficient to have at least one possible world where it is necessarily false that whatever is conceivable is possible. Consequently, it is indeed rightful to claim that it is possible that the conceivability principle is necessarily false. However, this necessary falsity is not something within the principle, rather it is based on one condition external to the principle itself, merely the existence of necessary laws. Therefore, only if there are necessary metaphysical laws, the principle would be necessary false. The falsity therefore cannot be inherent to the principle as it stands by itself; and thus, cannot be false in principle. For instance, if there are plenty of possible worlds, and few of which have necessary laws, it is then only necessarily the case that the conceivability principle is false in those worlds only. Whereas, in worlds where there aren't necessarily laws, the principle would still be valid. Consequently, the possible falsity of the principle is only true in worlds where metaphysical necessary laws are applicable, and it is therefore invalid to deduce the falsity of the principle itself unconditionally. Finally, the author's argument fails to prove the falsity of the principle based on the application of S5[ii].

5.6. My Refutation of Hume's Critique

5.6.1 General Note

In this section, I will demonstrate my argument against Hume's critique of the causal principle. I will initially decipher the imaginative components employed in his

critique and then I will base my critique accordingly. Before proceeding with my refutation, I need to clarify the below:

First, I agree with Hume that the conceivability principle is a guide to possibility. Furthermore, I endorse his argument in basing the principle in the three doctrines: empiricism, relationalism, and indirect realism. However, I have some conditions regarding the applicability of the principle, such that an object that is subject to the conceivability test should be primarily possibly imagined. In other words, for imagination to ground the possibility of *X*, *X* must be initially capable of being imagined. It should be an object of a possible imaginative episode. Furthermore, we cannot accept for granted the possibility granted by a coherent imagined scenario without unfolding any hidden impossibility. I will detail this crucial requirement when I argue for the necessity of the causal principle in the following chapter.

Second, I agree with Hume that we can clearly conceive an object non-existent in one moment and then existent the next without conceiving a cause. This is the imagined scenario under investigation. This scenario reflects three possible cases rather than one. The first one is the case of an uncaused event that Hume discussed thoroughly. And the second is the case of unperceived causation, an effect happening by an unperceived cause, whether the cause is circumstantially unperceived or entirely non-perceivable by the limitations of our senses. The third one is causation by "nothing". Hume only discussed the first without raising any attention towards the second and the third. I have previously raised this issue in my reply to Peacocke and Shoemaker in the section under imagery-based strategies. However, if I succeed in my argument, I will show that only the second scenario,

unperceived causation, is the possible scenario that explains the imaginability of an object non-existing a moment and existing the next without a cause.

Forth, I additionally accept Hume's observation that the separation between the idea of a cause from the beginning of existence is possible for the imagination. Furthermore, I do not take for granted the consequences of the separability principle. I will raise some doubts about the separability principle and defend the need to rationally investigate distinct propositions before taking for granted their separateness. Therefore, we cannot directly deduce the actual separability of causes from effects as further investigations should be done to confirm the absence of any hidden relation. Furthermore, here comes the crux of my argument against one aspect of Hume's analysis and where I critically diverge from his conclusion. I will show that the imagined separability is not a property of the imagined objects in as much as it is a property of the imagistic scene itself. And if this is right, I will show that it is thus fallacious to attribute this separability to cause and effect and thus claim their actual separability.

Finally, I will accept Hume's rejection of a posteriori necessities, and therefore, I will not discuss how this position would affect my argument. Having said that, I can now move to discuss the different elements of any imaginative scene, and then investigate Hume's hidden reliance on the imaginative components. Based on this I can then only introduce my critique.

5.6.2. On the Functionality of Imagination

Let me provide a theory of how imagination works, based on which we can properly understand the epistemic modal foundations of the faculty. Initially, imagination as a faculty has two major components: stipulative and pictorial. There are several terms used to describe those two components in the literature. However, I will be using the term "stipulative" to describe the assignments or the labeling of whatever is being imagined. This includes names, descriptions, definitions, relations, etc. This component thus employs linguistics to make sense of the imagined scenario. On the other hand, I will be using the term "pictorial" to denote all figures, shapes, events, states of affairs, etc. This element of imagination is depictive as it draws the impressions of thought onto the imagination's background scenery. That having been said, any theory of imagination as a guide to possibility should consider both distinct, yet interacting, components. In most cases, these components work together to create a sense of what can be imagined. For the sake of illustration, the below matrix shows how the different propositions are represented in the imagination. It is mandatory to note that this table is just to provide some sense of how both elements of the imagination work interactively to provide meaning to the conceived propositions. It is not a comprehensive theory of imagination, as this is not our interest in this thesis. The important aspect that I will be emphasizing later pertaining to the subject under study is the last type amongst the tabulated propositions. Simply stated, internal connections and hidden powers are not a subject of a possible pictorial experience per se; and thus, we cannot employ the conceivability principle to infer the metaphysical possibility of pictorial scenarios of propositions related to internal connections and hidden powers.

Table 1- Propositions represented in the different forms of imagination.

S N	Proposition	Representation		Comment
		Linguistic	Pictorial	
1	Matters of fact	✓	☑	Can be represented using language, and in most cases, we can form mental images of such propositions.
2	Fiction and fancies	✓	✓	Can be represented in both elements without any restriction.
3	Relations of ideas	✓	☑	Can be represented using language, and in most cases, we can form mental images of such propositions.
4	Self-contradictoriness	✓	✗	Can only be represented through language (e.g. squared circle)
5	Objects beyond possible experience	✓	✗	Can only be represented through language (e.g. God, heaven, hell)
6	Objects with pure pictorial representation	✗	✓	Objects that can be imagined but don't have any term to refer to (e.g. imagining a thing that is seen for the first time without having any vocab to describe it)
7	Objects beyond mental capacity	✓	☒	Can be represented using language, and in most cases, we cannot form mental images of such propositions (e.g. a megagon)
8	Internal connections	✓	✗	Can be represented using language only (e.g. causation, powers)

✓ can be fully represented ☑ represented with conditions ✗ cannot be represented ☒ cannot be represented with some

conditions

However, now let's view Hume's argument from the lens of both components. Is

Hume's critique of the causal principle purely stipulative or linguistic? Is it only pictorial?

Is it a combination of both?

Having a keen look at Hume's argument, we can realize that Hume is actually making two arguments instead of one. The first is linguistic that doesn't have any pictorial representation. It is based on the semantical distinctness of the notion of the beginning of existence and the notion of a producing agent or principle. The second, on the other hand, is a combination of both pictorial and stipulative, as it bases the aforementioned distinctness on a mental imagery of representation. Hitherto, I will uncover Hume's critique from the different elements of imagination.

5.6.3. Causation from a Pictorial Imagination Perspective

Imagination that is pure pictorial carries a representation of figures, shapes, events, colors, etc., i.e. the phenomenal aspects of things. Moreover, objects of a pictorial experience are presented as separate and distinct entities, and any sort of connection between them is stipulated by the mind and can never be solely shown as a form of imagery representation. Causation or the concept of production, as a general principle apprehended by the understanding, is a sort of an internal connection between things, which cannot be displayed as a form of pictorial imageries. Furthermore, we can trace the below reasons of why pure pictorial representation does not show any connection between its imagined figures:

1) Imagination as a faculty seems incapable to pictorially represent internal connections or disguised powers between the represented objects.

2) Pictorial images are re-configurations of impressions, and since the latter are perceived without any connection; therefrom, we do not imagine connections pertaining to such images.

3) Images of a priori reasoning, like geometry and algebra, lack forces by nature, and the analytic relation is purely linguistic and logical rather than pictorial.

Consequently, imagination based on pure pictorial representation cannot ground the possibility of an uncaused event by the application of the conceivability principle. This is because pictorial imagination doesn't show by any means any connection between the cause and the effect as noted. Therefore, we need to stipulate a connection and create the association between the imagined entities so that we label them as cause and effect and the relation between them as causal. Without doing so, we would be imagining two entities with silent connotations; nothing is said, and thus nothing can either be deduced. Consequently, the idea of causation cannot be a possible subject of any pure pictorial episode. And thus, we cannot have any modal stance about causation from the perspective of pure pictorial imagination. Therefore, the concept of causation, viewed from an imagery modal perspective, is a subject knowledge of both pictorial and stipulative components operating together to form the causal scenery in our imagination. On the basis thereof, Hume's formulation of the critique of the causal principle founded on pictorial imagination is a stipulative-pictorial argument rather than purely pictorial.

5.6.4. On the Stipulative-Pictorial Argument

This refutation of Hume's argument is based on an interpretation of his critique that is centered on a modal imaginative scenario that is stipulative-pictorial in category. Hume states that "it is easy to conceive any object to be non-existent at a moment and existent the next without any cause" (Treatise, 80). In this claim, it seems that Hume is relying on a stipulative-pictorial account of imagination to base his observation. This is because, to conceive an object non-existent at a moment and then existing the next requires a succession of mental representations of both scenarios, the first is when the object isn't existing, and the second is when the object emerges into existence. Therefore, this succession of representations requires an internal time of cognitive mental processes to project two distinct imageries happening sequentially in the order of the postulated scenario. This mental projection onto the scenery is thus pictorial, and the labeling of each of the scenarios is stipulative. In this context, the modal possibility of the postulated scenario is based on a stipulative-pictorial functioning of the imagination. Hume grounds the possibility of the actual distinctness of causes and effects based on this imaginative episode of their distinctness. His argument can be noted as such:

1) Imagined Scenario (S): We can conceive any object to be non-existent at a moment and existent the next without any cause. (premise)

2) (S) is conceived by means of a stipulative-pictorial account of imagination. (premise)

3) If causes and effects are conceived distinctly by a stipulative-pictorial account of imagination, then it is actually possible for causes to be distinct from effects. (premise)

4) Causes and effects can be conceived distinctly by stipulative-pictorial account of imagination. (premise; observation)

5) It is actually possible that causes and effects are distinct. (from 3&4)

6) If it is actually possible that causes and effects are distinct, then it is actually possible that the causal principle is not necessary. (premise)

7) The Causal principle is not necessary. (conclusion)

At a first impression, the argument looks valid and sound. However, there is a hidden false assumption in the fourth premise. The fourth premise assumes that the distinctness between causes and effects is a property that can be attributed to causes and effects as presented in the imagination. This, as I will show, is false. Assume A & B as two objects, having an internal relation C. Now based on a stipulative-pictorial account of imagination, we can never perceive or imagine any connection between A & B, and it is always the case that A & B will be imagined to be distinct from one another. This is because the pictorial account of imagination does not lay any ground for perceiving internal connections amongst imagined entities, and the stipulation is a mere labeling of A as 'A' and B as 'B' and the underlying unimagined connection as 'C'. The imaginative phenomenal separation between A & B is thus no ground of the possible separation between A & B in imagination itself, simply because the absence of this connection is a property of the pictorial imagination. The fallacy therefore lies in projecting the absence of the connection from the inability of the pictorial imagination to construct such a connection towards the imagined entities, and then claim the absence of the connection as a characteristic of the imagined scenario. In other words, the possibility of the separation

between A & B isn't founded in A & B themselves, rather it belongs to the infrastructure of the pictorial imagination that lacks the element of "internal connection", C, to add it to any scenario. It's not that we cannot perceive the connection between causes and effects in imagination and thus conclude the possibility of uncaused event, in as much as we can never perceive such a connection simply because imagination does not have the function of connecting between things present in its scenery. Consequently, the separation of causes from effects is not a characteristic property of causal relations; and thus, one cannot deduce the possibility of their actual separability. Below is a structured syllogism for my argument:

1) We can never imagine any connection between objects of the imagination. (premise, observation)

2) Therefore, it's fallacious to attribute the absence of the connection between the objects of imagination to the imagined entities themselves. (from 1)

3) Therefore, we cannot claim that there is no connection between the objects of imagination. (from 2)

4) Thus, we cannot ground the possibility of the absence of connection between the objects of imagination. (from 3)

5) Consequently, we cannot deduce the actual separability between the objects represented in imagination. (from 4)

The argument's focal point is that since we can never imagine any connection between objects of imagination, therefore it's fallacious to conclude the absence of such a connection in the imagined scenery. And thus, we cannot ground the possibility of an actual non-connected objects, vis-à-vis, grounding the possibility of an actual uncaused event.

However, it is worth to note that we can still imagine a flying elephant and base the actual possibility of a flying elephant on that imagined scenario. This is because we aren't basing the possibility of a flying elephant on a hidden connection, rather we can imagine a distinct object of imagination which is a flying elephant. Consequently, a stipulative-pictorial account of imagination can provide the basis of the possibility of a counterfactual, or for things to be perceived differently, but not the possibility of uncaused events.

5.6.5. On the Linguistic/Stipulative Argument

Hither below, I will discuss an interpretation of Hume's critique that is based on pure linguistic/stipulative account. After that I will proceed to formulate my refutation. We can find this interpretation in Hume's conclusion "therefore, the separation between the idea of cause from the beginning of existence is possible for the imagination" (Treatise, page 80). And in another selection, Hume uses the term "productive principle" to signify a cause; he claims "we can never demonstrate the necessity of a cause to every new existence, or new modification of existence, without shewing at the same time the impossibility there is, that any thing can ever begin to exist without some productive principle" (Treatise, Page 79). The comprehension of this separability is purely analytic as it is based on the distinctness of the two ideas, and it does not require any pictorial representation. The idea of a cause reflects a producing agent, or as Hume puts it "productive principle" (ibid), that is distinct from the notion of beginning of existence. It is indeed true that a producing agent can sufficiently be responsible for the existence of what follows from its powers, and that entity produced in return would have begun to exist.

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However, the opposite doesn't follow. The beginning of existence doesn't, on the contrary, necessarily involve the concept of a producing agent. Therefore, from a linguistic analysis, we can surely conceive the distinctness of the two said concepts. To move forward and establish the actual possibility, one needs to include the separability principle. The possibility, thereof, of the actual separability of causes and effects can thus be firmly established.

Furthermore, since we can infer the existence of a direct effect from a producing agent once put in action, and since the opposite doesn't follow, i.e. we cannot infer the concept of a producing agent from the notion of beginning of existence, we thus establish a first order separability principle that functions asymmetrically. Applying the principle of separability, we deduce the following:

1) We cannot reduce the concept of beginning of existence to the concept of a cause, but we can reduce the concept of a producing agent to what follows from its powers.

2) We cannot infer the existence of whatever begins to exist from a cause, but we can infer the existence of a producing agent from its direct consequent.

3) We cannot explain the beginning of existence of a thing in terms of a cause, but we can explain a producing agent from what it begets.

4) We can only consider a producing agent to be a part of the mind-independent essence of its subsequent, but we cannot consider what begins to exist to be part of the mind-independent essence of a cause.

The fact that we can reduce an effect to a producing agent, and we cannot reduce the beginning of existence to a cause, is due to two simultaneous reasons; the first is epistemic and the second is metaphysical.

1) We have certain knowledge that a thing produces another entity.

2) A producing agent is responsible for the existence of its consequent effect due to its internal powers that would sufficiently bring the effect into existence.

In this approach of the argument, there is no issue in accepting the necessity between a producing agent and its effect since this necessity is already pre-established in the definition of a producing agent, merely a thing that has the power to produce another thing. It is worth to note that this analysis is valid only if we are certain that what we are referring to as "producing agent" or "productive principle" is indeed a producing agent. In this case, the epistemic underdetermination is set aside, and we have epistemic confidence or certainty about the productive principle. However, I don't think we should interpret Hume in a manner to assure this hidden assumption. Consequently, when he uses the term "productive principle" he doesn't mean to assure any hidden power attributed to a thing, and thus remove this epistemic confidence. On the other hand, Hume uses the term "productive principle" just like he uses the term "cause" to denote what we assume of a thing to be a cause for another. Therefore, Hume does not hold any necessary relation between causes and effects, nor between effects and causes; and thus, he embraces a full separability between the notion of a cause and the notion of effect. But can we take for granted this separability? Or is there room for doubting the alleged separability of what are conceived to be separable?

One of the most influential works that established a systematic philosophy for the attempt to associate some of what has been conceived to be separate is the work of Immanuel Kant in his *Critique of Pure Reason*. However, it is indeed beyond my capacity to discuss his philosophy pertaining to the synthesis of distinct ideas; nevertheless, his philosophy provided a serious and reasonable doubt against blindly accepting the actual separatedness of what is conceived separately. Under this understanding, it becomes false to directly conclude the separateness from the conception of separability of things without further effort to uncover any hidden synthesis between distinct ideas. For example, take the proposition "the sum of angles of a triangle in Euclidian geometry is 180 degrees". "180" is distinct from "triangularity", yet we can find a necessary relation between the two distinct concepts. Consequently, it is not sufficient to conclude the separability of ideas from just conceiving the separatedness; rather, we should rationally investigate any possible hidden relation. I am not adopting the Kantian answer to Hume regarding causation, nor I will be discussing it in this paper; rather, the issue at stake is that we shouldn't take the conceived separability for granted. But where does this place Hume's critique? Now we are left with the following positions:

1) Either whatever are conceived separated is indeed separate until proven otherwise.

2) Or we cannot take for granted the separability of whatever is conceived to be separate until we prove there is no hidden relation.

Who has the burden of proof? The Humeans who take the separability principle for granted? Or the friends of the second position who doubt the separability principle and

conditionally accept it once we prove the absence of any hidden relation? Even though this is a legitimate question; nevertheless, I will not dwell further into it. As long as there exists some cases whereby things that imagination deemed to be distinct are proven otherwise by reason, then we have legitimate doubt in taking the separability principle for granted. Therefore, this leaves Hume's critique exposed to a reasonable possible threat: the conceived separateness might be false. This is not a well formulated response to Hume's analysis, it's just a position that raises a serious doubt to his critique of the causal principle. Consequently, Hume's argument would still be a fair, rather than strong, argument against the necessity of the causal principle.

However, a possible strong refutation should be able to bridge the analytical gap between the concept of beginning of existence and the concept of a producing agent. One probable argument to connect causes to effects is based on a definition that mutually meshes the two notions together. In this sense, cause and effect are linguistically defined to be conjoined together, a cause is defined as a thing that produces another, and an effect is defined as a thing to be produced by another. In this manner, we cannot conceive a cause without conceiving an effect, and the reverse holds similarly true. But this is mere definitions and a linguistic game, and is a tautology that has no philosophical depth to the subject matter whatsoever. What is more fundamental is conjoining the idea of the beginning of existence with the idea of a producing agent. Therefore, a sound refutation should provide an a priori logical grounding for the connection between the idea of beginning of existence and the idea of a producing agent. In this next chapter, I will provide my argument for the causal principle.

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CHAPTER 6

ON THE NECESSITY OF THE CAUSAL PRINCIPLE

In this section, I will demonstrate my proof for the necessity of the causal principle. It is worth reminding the reader that the causal principle I am defending has the following formulation: "whatever begins to exist must have any cause without which it will never come into existence". The principle I am defending does not require a specific cause for a specific effect; rather, it stipulates any cause, whether X or Y or Z, to whatever begins to exist. Therefore, I am not accepting nor defending any deterministic account of causation based on which specific effects follow from determined causes. My account of the causal principle is thus an intermediate stance between determinism and uncaused events. Moreover, I will not address the problem of Induction, as it is beyond the scope of the thesis. The principle of Induction provides sufficient grounds for the belief in the relation between specific causes and their respective specific effects. Even though the relation between the former and the latter is not necessarily, yet the principle of induction provides a systematic basis for the belief in the nature of the relation between specific causes and their corresponding effects. Nevertheless, I will not address the likelihood of the occurrence of effects from specific causes as this is another dimension of causation that needs further establishment. I will only restrict the study in establishing the necessity or metaphysical need of a cause to any effect.

6.1. On the Possibility of a Necessary Proof

In order to prove the necessity of the causal principle, we need to demonstrate the necessity of two major proofs simultaneously. The first proves that nothingness cannot be a cause, and the second should show that an uncaused event is impossible. The type of necessity involved is the logical a priori necessity whose opposite is an impossibility. When we claim that the causal principle is necessarily true, we are confirming that it is impossible for a thing to become into existence without a cause, such that whatever comes to be, does so due to a cause. Consequently, the principle at stake is an a priori statement that describes a fundamental truth in nature that cannot be violated. Therefore, in order to establish the necessity of the principle, the proof should take into account the following:

1) Validity: An argument that is strong enough to establish a well-based conclusion. In other words, the latter should follow necessarily from the premises, such that if the premises are true, then it is impossible for the conclusion to be false. This is a logical necessity that governs the validity of the argument.

2) Soundness: In order for the conclusion to be true, the argument must be valid, and the premises must be true.

3) Necessary correspondence: This is different from soundness. A premise can be true without necessarily corresponding to a referent. A necessarily corresponding premise is that which necessarily refers to a certain thing and not to anything else such that there is no possibility that a statement may have a non-precise referent.

4) A prioricity: The truth of the premises is known a priori, or at least the truth of the major premises is known a priori.

These four conditions should be present simultaneously in order for any proof to establish the necessity of the causal principle. Validity and soundness of the argument are the fundamental elements for accepting any argument in general. However, necessary correspondence differs from soundness in the sense that the former requires a necessary indication to a specific referent. For example, there is no necessary reference between the term "elephant" and an elephant, since an elephant who lost its tail is still an "elephant". On the other hand, there are no other ways by which we can refer to nothingness other than non-existence. Nothingness, as a concept, is a simple concept that refers to no-being; and thus, there is no way for that concept to refer to a different state of no-being, as there are no different states of non-existence. The importance of necessary correspondence in this regard is that it grounds the transition from logical necessity to metaphysical necessity. To clarify this, assume P to be a proposition that investigates a concept Q. Assume that Q has a referent f, and that any of f's alterations, f', f'', f''', can also be referents of Q. Now, if P is true, then there is a truth value of Q about f. But since Q can also designate f' or f'' or f''', then if P is true, then the truth value of Q would still be valid about any of its designators f, or f', or f'', or f'''. Consequently, since any of the designators can be an acceptable referent of Q, then we cannot claim a necessary correspondence between P and f; we can only maintain the truth value of P under any of Q's designators. On the other hand, necessary correspondence requires that when P is true, then there is only one specific referent of Q that is true under P. The importance of necessary correspondence is that it bridges the gap between logical necessity and metaphysical necessity, such that whatever is proven of a concept is necessarily true about its designator. In this respect, if P is (logically) necessarily true, then f has a (metaphysically) necessary truth as described by P. Furthermore, a proof

that establishes the necessity of the causal principle is a proof demonstrated a priori independent of any experience. For this sake, the proof should employ and analyze concepts a priori to base its conclusion. The method therefore employed to establish the truth of the premises is analytical whereby concepts are conceptually digested to uncover necessary relations between themselves and between what they employ. From what has been said, the four conditions once met collectively constitute the necessary conditions for a possible proof a priori for the causal principle. The proof will be demonstrated in the relevant section.

6.2. On the Necessity of the Proof as Such

In order to establish the necessity of the causal principle, the proof should be demonstrated by means of logical necessity. It has to be shown that it is impossible for a thing to come to exist without any cause. For this purpose, we need to establish the impossibility of the following simultaneously:

1) A thing caused by nothing

2) Uncaused event

It is worth noting, that we cannot establish the necessity of the causal principle by only showing the impossibility of the first proposition. If we were to show the necessity of the causal principle by only demonstrating the impossibility of the first proposition, then we would be having a causal principle that depends on the Principle of Sufficient Reason. To clarify my point, consider the below argument.

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1) Nothingness cannot be a cause

2) If there were nothing, then there is no thing that would come into existence

3) Therefore, in order for a thing to exist, there should be something to bring it into existence.

The focal point of the argument is that if there were initially nothing, then it will always be the case that nothing will come into existence. This is justified by the initial premise that nothing cannot cause something. Yet, further scrutiny shows that the argument seems to rely on a hidden premise, namely, that whatever begins to exist must have an explanation for its existence. And that's why the argument deduces from the impossibility of nothingness to bring something into existence the need for a cause to bring forth a thing into being. This stipulation of a cause begs the question. In other words, the argument has the following hidden reasoning: since nothing cannot be a cause, then there should be something to justify the emergence of things into being which is a clear dependence on the Principle of Sufficient Reason (PSR). The PSR in return requires further establishment and proof which is beyond the scope of this thesis. To claim an event is uncaused is to claim that the event happened without any justification including the attempt to justify the occurrence of the event by nothingness. Consequently, in order to prove the necessity of the causal principle, we need to show that an uncaused event is impossible likewise nothing cannot be a cause. In the sections below, I will discuss the impossibility of both propositions.

6.3. On the Impossibility of Nothingness as a Cause

To start with, I will demonstrate why "nothing", as complete "nothingness", cannot be a cause from and within itself. Hither below, I will represent "nothing" or "nothingness" to indicate the possibility wherein no contingent nor necessary entity is ever existing. "Nothing" is not a unit and thus it sounds absurd to refer to it by using the phrase "from and within itself". However, this denotation is just mental to describe the situation at stake. Moreover, "nothingness" is not an object of a possible imaginative experience, as the consciousness or the black scenery of imagination are inevitable in conception, nor it is an object of a possible experience as we cannot experience "nothingness". Therefore, the premise, "impossibility of "nothingness" to be a cause", if proven true, would be necessarily true by definition without relying on any imaginative episode or on experience. "Nothingness" by definition lacks the ability to produce, as if it were for "nothingness" to produce, it would have at least an attribute, that of production, which contradicts its very notion of non-existence. Simply stated, this truth is not only a conceptual truth that has no ontological significance. On the contrary, its truth extends to the metaphysical depth of "nothingness", and what follows from the concept applies necessarily metaphysically. This is because there is an exact correspondence between the concept of nothingness and "nothingness" per se. As a result, it necessarily follows that "nothingness" cannot be a cause. The argument has the following structure:

1) Nothingness as a concept necessarily corresponds to "nothingness" (premise).

2) In case of necessary correspondence, whatever follows from a concept also applies necessarily to its referent, vis-à-vis its metaphysical implication (premise).

3) Nothingness cannot be a cause (follows from the definition of nothing).

4) Therefore, "Nothingness" cannot be a cause (from 2 & 3).

From what has been said, we can deduce that it is impossible for "nothingness" to cause something into existence. This proof conforms to the aforementioned criteria for the possibility of a necessary proof for the causal principle, and specifically, the proof relies on necessary correspondence and is demonstrated a priori.

6.4. On the Impossibility of An Uncaused Event

After demonstrating the impossibility of "nothingness" as a cause, I will now show that an uncaused event is also impossible. For the sake of philosophical modesty, this is a very tough task, and I hope I convince my reader with my analysis. Initially, it is worth to note that John Locke attempted to demonstrate the impossibility of an uncaused event by showing that if something is uncaused then it is caused by nothing, and since nothing cannot be a cause, then it is impossible for a thing to become uncaused. The argument has the following structure:

1) If something began to exist without any cause, then it is caused by nothing (premise)

2) Nothing cannot be a cause (premise)

3) Therefore, for something to begin to exist, it must have something for its cause (from 1 &3).

To this argument, Hume replies that it is circular as it employs the causal principle in its first premise while attempting to prove it. To claim that an uncaused event has "nothing" as a cause, is to say that "nothing" is the cause, which is a clear dependence on the causal principle (Treatise 81). In what follows, I will demonstrate a proof of the impossibility of an uncaused event without falling in a similar circularity. Initially, I need to unfold the proposition "uncaused event" and investigate its roots and mental representation. To start with, it is important to recall why Hume thinks that an uncaused event is possible.

As noted earlier, Hume justifies the possibility of an uncaused event by the fact that we can imagine a thing emerging into existence without any cause. But is this mental scenario sufficient to ground the possibility of an uncaused event? Well, we can imagine "1+1=3" and at the same time we are certain of its impossibility! To this end, we shall clarify a further necessary test for deducing possibility based on conceivability.

Since we can imagine that "1+1=3", then it is indeed possible to have the proposition existing. But this has no token on its truthfulness. When we imagine that "1+1=3", we are imagining a figure or a graphical representation that lacks truth value of its constituents. The truth value, in this case, lies within the relations between the notions of "1", "+", "=", and "3". In this respect, we can find two ways by which we can identify the truth value of propositions from the perspective of the conceivability principle:

1) To identify truthfulness of the proposition from only an imagistic perspective, we need to represent the relations in terms of figures. I will call this method figural representation. For example, let the representation of "1" be a circle with one dash (I), and "2" be a circle enclosing two dashes (II), and "3" be a circle enclosing three dashes (III). Moreover, let "+" be represented by the process of merging circles into one whereby the figure it captures fuses together into a new graphical representation. Therefore, "1+1" would be two circles each enclosing one dash "I" merging together to attain a new figure which is a circle enclosing two dashes "II". By definition, the latter represents "2"; consequently, we can deduce from pure imagistic representation that "1+1=3" is simply false. And since we have no other conclusion than "2", then "1+1=3" becomes necessarily false. Moreover, imagination can also use induction to establish the possibility of certain propositions that imagination cannot have any modal stance due to its limited capacity to imagine. For instance, imagination cannot represent a megagon, a polygon with million sides, but imagination can still ground its possibility as we can imagine a polygon with a low number of sides and then increase the number of the sides inductively. In this process, we cannot observe any barrier towards reaching the megagon except the limitation of our memory, but there is not any hinderance related to the figural representation that would entail its impossibility.

2) The second way of identifying possibility from whatever is conceivable is by confirming that there are no impossibilities. This method requires the use of the faculty of understanding to unfold any hidden absurdities between the relations

of ideas underlying the proposition. So since "1+1=3" is conceivable, then it is possible to have a graphical representation of the proposition, i.e. to see it written somewhere, but its truth value is analyzed by the faculty of understanding where it is proven to be impossible. Consequently, we cannot take for granted the imagined scenario to ground the possibility of its content without investigating any hidden absurdity. And this becomes more critical when we have the same mental imagery for different scenarios.

Now how can we ground the possibility of "uncaused event" based on the above two criteria? From a figural representation perspective, there is no graphical representation of the proposition beyond the imagined scenario of a thing non-existing at one moment and existing at the next without imagining a cause. On the other hand, reason, or the faculty of understanding, cannot, at first sight, demonstrate an analysis of the proposition "uncaused event" due to the nature of the proposition itself. In order to investigate a certain idea, we need to unfold it, or show how it relates to another idea, and then establish relations between them or what follows from the idea itself. In this case, when we attempt to analyze the concept of uncaused event, reason or the faculty of understanding, seems to fall short of any analytical investigation since the proposition "uncaused event" has a mental representation of a thing coming into existence without any mental connection to anything else. The absence of this mental connection makes it impossible for reason to establish any analytical proof grounding any modality pertaining to the proposition. Therefore, we form an initial impression that the proposition cannot be analyzed as its mental representation does not provide any connection between ideas under study. In other words, 'uncaused

event' is not analyzable because its concepts do not involve any other**.** Consequently, we are driven by this analysis to conclude that the modal possibility of the proposition "uncaused event" can only be validated by a stipulative imaginative method based on the imagined scenario of a thing popping into existence without conceiving any cause, as Hume shows. But does the imagined scenario necessarily ground the possibility of uncaused event? Or is the imagined scenario misleading us to accept the possibility of an uncaused event while, on the other hand, it ought to establish the possibility of something else. We have seen before that the imagination has mislead us to think that "1+1=3" is possible, and as we have carefully analyzed that the imaginability of "1+1=3" does not ground the possibility of its truth-value, rather it only grounds the possibility of having "1+1=3" being written somewhere. And thus, it becomes legitimate to be skeptical about the possibility of uncaused event based on its imaginability.

To answer this concern, I first need to show how the conceivability of the imagined scenario of something emerging into existence without a cause might refer to multiple scenarios. I find the below three different propositions having the same imagined scenario.

1) Uncaused event

2) Caused by "nothing"

3) Caused by something that is non-perceivable (whether at a distance or absolutely non-perceivable).

When we want to conceive each of the three propositions, we notice that they have the same imagined scenery even though the stipulation is different. In the case of (1)

"uncaused event", we imagine a thing emerging into existence without imagining a cause responsible for this emergence. It is worth noting that the scenario does not necessarily require not to imagine anything else than the thing that emerged without a cause, as we may still imagine things surrounding that entity yet without stipulating a cause from any of its surrounding. On the other hand, (2) the imagined scenery of the proposition "caused by "nothing"" also has an imaginative episode of a thing presenting itself in the imagination without an imagined cause. This might be objected by the fact that the proposition requires nothing as a cause, and thus the aforementioned imagined scenario isn't accurate since "nothing" is not represented in the scenery. But we cannot imagine "nothing" as an entity in imagination, and thus the mental representation of "caused by nothing" is imaging a thing presenting itself in imagination without imagining any power or a cause responsible for the emergence. Similarly, (3) the imagined scenario of a non-perceived cause, whether acting from a distance or whose nature cannot be perceived, would also have the same mental imagery as the previous two cases. This is because not perceiving the cause requires its absence from the imagined scenario; and thus, the mental scenario would be a thing emerging into existence without including a cause in the imagined scenario. Therefore, we can firmly deduce that the three propositions under study have the same mental imaginative scenario, which is a thing presenting itself in the imagination without imagining a cause, regardless of whether there are other things present in the imagination or not. With that being said, we can infer the below from the imagination of a thing emerging into existence without imaging a cause:

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1) The imagined scenario is not restrictive for grounding the case of an uncaused event, as it can also ground the possibility of the second and third cases.

2) The imagined scenario might ground all the three propositions simultaneously and thus is not conclusive evidence for the possibility of an uncaused event. In other words, if something emerged suddenly without a direct recognition of a cause, then we cannot directly infer that the event is uncaused as the other two cases are equally possible by the imagination.

However, we have noted earlier that reason demonstrates the impossibility of the second proposition, vis-à-vis "nothing" being a cause. This would raise a conflict between reason and imagination since they have sought opposing conclusions regarding the same proposition "nothing as a cause". How then can we reconcile this opposition? Secondly, if statement 2 is impossible and at the same time imagination can still provide a correspondent mental scenery, is it reasonable to unquestionably trust imagination in grounding the possibility of "uncaused event"? What if it turned out that "uncaused event" is impossible and that the only case corresponding to the mental scenario under study is the third one? This is exactly what I will be showing below.

Initially, we have previously mentioned that grounding the possibility of the imagined scenery is granted on the basis of precluding any impossibility within the proposition. The impossibility might be direct to the imagination, like "squared-circle", or hidden like "Pythagoras theorem is false". The latter needs further demonstration, and this demonstration can be done either by imagination itself through a process of figural representation or imaginative induction highlighted previously, or by the faculty of

understanding that relates ideas rather than figures. In case when we have contradictory modal conclusion between the reason and imagination, reason has the upper framework of leading towards the right modal conclusion. This is due to the below reasons:

1) The faculty of understanding deals with meaning of propositions and not only a figurative representation.

2) The faculty of understanding can relate ideas whereby imagination fails to do so.

3) The faculty of imagination has a higher degree of abstraction that can deal with higher notions that cannot be comprehended by the imagination.

4) Imagination can be general in what it represents whereas reason is specific and decisive.

For example, assume we have the following cases:

1) The black cat is hidden behind the curtain.

2) The window is hidden behind the curtain.

3) The Las Meninas portrait is hidden behind the curtain.

Even though each of the three propositions are different than the other as they describe a different situation, yet the mental imaginative episode is the same. We can only imagine a curtain whereby the different said objects are hidden and thus are not subject to imagination. In this example, we can understand how:

1) Distinct propositions may have the same imagery.

2) Reason can be specific while imagination is general.

3) Reason deals with meaning and ideas while imagination deals with figural representations.

Furthermore, I will provide an example whereby reason confirms the necessity of the proposition meanwhile imagination thinks it is odd or even impossible at first insight. If we want to add the infinite series of "$1 - 1 + 1 - 1 + 1 - 1 \ldots$", our imagination tends to accept an answer of a null value, since we are canceling the unity after adding it, and by induction, the answer will remain zero. But this is wrong! The correct answer is astonishingly ½, half a unity. This series is known as Grandi's series and is a well-established mathematical theorem. Imagination did not lead us to a false answer in as much as it employed induction badly; and on the other hand, since reason has the ability to deal with abstractions thoroughly, we were able to demonstrate the necessity of the proof. This is another good example of the necessity of unfolding propositions by reason before directly accepting the modality as grounded by imagination.

But what if we cannot establish any analytic proof for the proposition? In such a case, how can we uncover any impossibility of such propositions by means of pure analytical reasoning? Would we surrender to the judgement of imagination and therefore accept what the imagination directs us towards the proposition's modality? Or is there a further method we need to unveil to warrant the modality of the proposition under study?

As noted above, it is a necessary step to investigate any hidden impossibility before accepting the possibility grounded by imagination. In some cases, certain propositions cannot be investigated rationally from an initial impression, and as mentioned previously, "uncaused event" is such a proposition. Therefore, we either need to reject the

imagination's grounding of "uncaused event" or find a way to investigate it. If we need to jettison imagination's grounding of "uncaused event", then we are only left with one truth, that the imagined scenario is in fact grounding the possibility of only the third case, vis-à-vis, "caused by something that is non-perceivable". On the other hand, if we need to be more charitable with propositions that cannot be unfolded rationally, I offer the below theorem that would aid us to rationally unfold propositions that we cannot by analytical means waive their impossibility.

To this end, if we cannot waive any impossibility of a proposition by means of analytical means for the purpose to ground possibility in imagination, I suggest investigating its ontological equivalence. We say proposition Y is the ontologically equivalent to proposition X in the sense that they both refer to the same event or object Z. They refer to an ontologically exact state of affairs. However, my argument for such a strategy can be detailed as such:

1) Assume proposition S. (assumption)

2) To rationally investigate S, we need to do at least one of the following. (premise)

   2.a) Investigate its implications or set of premises resulting from S.

   2.b) Investigate its causes or set of premises leading to S.

   2.c) Investigate its equivalence (whether an exact equivalent or a conjugate).

3) We cannot investigate S's implications nor its causes. (premise; and this is the case for "uncaused event")

4) Therefore, S shall be investigated by its equivalence. (conclusion)

The proposition "uncaused event" cannot be investigated by its implication nor by its cause; and therefore, we shall rationally investigate its ontological equivalence in the attempt to rationally unfold any hidden impossibility within the proposition. We cannot investigate the proposition by its implication because the proposition itself portrays an event that happened and there is no further consequence from the proposition itself. Moreover, the proposition denies the existence of a cause, so we cannot investigate causes or any set of premises leading to the proposition. Therefore, we are left with the third option which is investigating the proposition by means of an ontological equivalence. But before proceeding with this, let me provide some examples to clarify my point. In the table below, I provide set of propositions and then investigate the epistemic means by which we know their truth respectively. The means are as noted; we come to know the truth of the proposition by its implications, causes, equivalence, or conjugate.

Table 2- Truth of propositions identified by their implications, causes, equivalence, or conjugate.

Proposition / Knowable by	Implications	Causes	Equivalent	Conjugate
1. There is a necessary being	✓	✗	✗	✗
2. There exist multiverses	✗	✓	✗	✗

3. Light particles were born 3 mins after the big bang through a process called nucleosynthesis	✖	✖	✓	✖
4. A Particle's angular momentum is the derivative of its action with respect to is angular position.	✖	✖	✖	✓
5. Uncaused event is possible	✖	✖	✓	✖

We cannot know the truth of proposition 1 except by the implications of the existence of a necessary being, i.e. from the existence of contingent beings. There is no cause for a necessary being, and the existence, if any, of its conjugate or equivalent won't escape the same concern. Add to that, the analysis of the concept of necessity with the concept of existence does not assure the truthfulness of proposition 1. This amounts to a rejection of the ontological argument; but that argument is beyond the scope of this paper. On the other hand, the second proposition can only be known by assessing the cause of a multiverse, which is, as physics describes, quantum fields. We have no direct access to them, and thus we cannot investigate its implications. The equivalent of a multiverse is also a multiverse, and thus, we cannot investigate the proposition by its equivalent as this would leave us in a vicious circle. Furthermore, we were able to know that light particles were created only three minutes after the Big Bang through mathematical modeling of the universe. The models are considered an accurate representation of the physical phenomena.

We can argue that such models are equivalent to their respective phenomenon such that whatever is known from these models is also known about reality[1]. Proposition 4 entails that angular momentum of a particle is known only after knowing the orientation of the particle. This is because momentum and direction are conjugates such that the former is a derivative of the latter. The relation between them is not causal, as the direction of the particle isn't causing the momentum; rather, knowing the orientation of the particle would allow us to know its momentum.

The fifth proposition is our main concern. As discussed, we cannot know its truth by investigating its implications, causes, and conjugate, if any; and thus, we can only rationally investigate the proposition by means of an exact equivalent. The only exact equivalent for "uncaused event" is "caused by nothing". This is because both propositions have the same ontological description which is a thing emerging into existence without any causal connection to anything else. This exact metaphysical state indicates that the two sentences are equivalently the same. In other words, they have the same reference, as they refer to the same kind of event – a thing emerging into existence without any connection to anything else. If they were to be different, then they would have different metaphysical states. But since both necessarily correspond to the same ontological state, then they should be treated as one proposition. I will demonstrate two proofs of their sameness. The first is based on the notion of ontological equivalence, while the second is based on a linguistic analysis.

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[1] I am not adopting a position of a realist about mathematics as this topic is beyond the scope of this paper. I'm just describing how cosmologists describe physical phenomena using mathematical models.

6.5. Argument from Ontological Equivalence

The argument for the sameness of the respective proposition "uncaused" and "caused by nothing" from the perspective of ontological equivalence has a general syllogism as the following:

1) Proposition A necessarily corresponds to a state of affair X (assumption).

2) Proposition B necessarily corresponds to a state of affair X (assumption).

3) If propositions necessarily correspond to the same state of affairs, then they are the same (premise).

4) Therefore, Proposition A is the same as Proposition B (conclusion).

The argument is composed of two assumptions, a major premise, and is based on the notion of "necessarily correspondence" discussed above. The main point that this argument is trying to prove is that if two propositions necessarily correspond to the same ontological state of affair, then they ought to be the same. If they were different, then they wouldn't correspond to the same event. This is because, if propositions were different, then they have different truth values assigned to each of them; and thus, they cannot describe the same truth. They might describe a single event but from different perspectives, but they cannot be different if they describe the same thing in the same manner. And that's why it is necessary to maintain the soundness of the argument by employing the notion of necessary correspondence. In this manner, when proposition A necessarily corresponds to a state of affair X, then the ontological reality of X has been fully described by A, such that there is no additional characteristic of X that has not been described by A. And the same applies to

proposition B, whereby there is no characteristic of X that has not been described by B. Consequently, there is an exact conformity between the respective propositions and the state of affair X. Therefore, this calls for the exactness of both of A & B's descriptions about X, and thus, the exactness of A and B themselves. Adhering to the propositions under study, we can structure the argument in the same manner with minor adjustments in order to ground the ontological equivalence between "uncaused event" and "caused by nothing"

1) "Uncaused event" necessarily corresponds to a thing emerging into existence without any metaphysical connection to a thing responsible for its existence (premise 1).

2) "Caused by nothing" necessarily corresponds to a thing emerging into existence with a metaphysical connection to "nothing" being responsible for its existence (premise 2).

3) The metaphysical connection to "nothing" is an absence of any metaphysical connection (assumption).

4) "Caused by nothing" necessarily corresponds to a thing emerging into existence without any metaphysical connection to a thing responsible for its existence (from 2&3).

5) If propositions necessarily correspond to the same state of affairs, then they are the same (major premise).

6) Therefore, "Uncaused event" & "caused by nothing" are the same proposition (from 1&4&5).

The argument above is composed of two premises, an assumption about "nothing", and a major premise that bridges the two propositions together. The first premise describes the metaphysical reference of the proposition "uncaused event". If an event or a thing emerges into existence without a cause, then, metaphysically speaking, there is no power that is put into action to bring that thing into existence. It just emerged without any force. Thus, there is no connection between it and any other thing existing independently. On the contrary, the second premise assures that the proposition "caused by nothing" denotes a thing emerging into existence by the power of "nothingness". But since "nothingness" does not have any power, thus there can be no metaphysical connection between "nothingness" and whatever comes into existence. Thus, the reference to "nothing" by the proposition is just mental or phenomenal. Therefore, we can deduce that "caused by nothing" similarly bears no connection to whatever begins to exist, vis-à-vis premise the fourth. The fifth premise is an essential premise in the argument as it plays a critical role in equating the two seemingly distinct propositions. As noted above, we cannot have different propositions necessarily corresponding to the same event. If propositions were different, then they would correspond to different state of affairs. But since they necessarily correspond to the same state of affair, then they should be equivalent.

It is critical to note that the truth of the fifth premise is based on the notion of necessarily correspondence as it would be false if it were to be based on mere reference between the statement and the referents. Only exact correspondence would govern the necessity of affinity between the statement describing a thing and what is being described by the statement. Mere reference between the former and the latter does not govern such

necessity as we might have different possible alterations for the referents as discussed above. And since "uncaused event" and "caused by nothing" necessarily correspond to the same state of affair which is a thing emerging into existence without any metaphysical connection, then we can deduce their equivalence. But if this is true, why does our mind conceive them to be different? Why is there still an internal urge to consider them as two distinct propositions? To answer this question, I will lay down a linguistic analysis to uncover this mystery.

6.6. Linguistic Analysis

As noted above, if the two propositions under study correspond to the same event, why does the mind still conceive them to be different? In other words, how can we ground the possibility of having two different propositions corresponding to the same event? If my aforementioned analysis is true, and if there is such a case of two seemingly different propositions necessarily corresponding to the same thing, then the alleged difference between the propositions is only phenomenological and linguistic. The mind portrays the propositions as two different; but upon unfolding their ontological implications one can conclude their sameness. The table below shows the difference between the two propositions at the epistemic and metaphysical levels.

Table 3- Epistemic & Metaphysical differences between "uncaused event" & "caused by nothing"

	Uncaused Event	Caused by "Nothing"

	A thing coming into existence without any mental connection to another.	A thing coming into existence with a mental connection to nothing as a concept denoting "nothingness".
Epistemic Representation	A thing coming into existence without any mental connection to another.	A thing coming into existence with a mental connection to nothing as a concept denoting "nothingness".
Metaphysical Representation	A thing coming into existence without any connection to another	A thing coming into existence without any connection to another

As depicted by the matrix, the proposition "uncaused event" has a mental representation whose content is a thing coming into existence without the representation of any mental connection to another thing. In contrast, the proposition "caused by "nothing"" has a mental representation whose content is a thing coming into existence with a linguistic-stipulative relation to non-existence– as a concept denoting "nothingness". The difference between the two epistemic representations is that the content of the first proposition has no attribution to anything, whereas the second proposition has an attribution to "nothing". On the other hand, the metaphysical representation for both is the same. Both propositions imply the absence of any metaphysical connection towards the thing that began to exist.

Furthermore, the distinction between the difference of the propositions' meaning and the sameness of their reference, assumes Frege's distinction between sense and reference. Frege distinguishes between sense, which is the meaning we have in mind of a certain proposition or name, and reference, which is the actual object or event happening in reality. This distinction is crucial to ground the possibility of having two co-referring yet different propositions. If we were not prone to accept this distinction we cannot proceed

with the analysis and establish a relation between the two. The reason behind the difference in sense of two co-referring propositions is due to linguistic and phenomenal factors. For instance, the famous two co-referring phrases in the philosophy of language that clearly explain the phenomenal difference in senses are: "The morning star" and "The evening star". Both sentences refer to the same star which is Venus, yet the former denotes the star during the day, while the latter denotes it during the night. But they both refer to Venus regardless of any phenomenal and surrounding factors, vis-à-vis the day and the night. By the same token, the difference between "uncaused event" and "caused by nothing" is linguistic. The root of this linguistic difference between the former and the latter is due to the ambiguity of the relation between the negation of a state of affair and the affirmation of its opposite. For instance, take the proposition "Kant is unmarried" and its conjugate "Kant is married to no one"; are they the same? The first one is claiming that Kant is not married, i.e. the proposition is negating the act of marriage; on the other hand, the second proposition is confirming the act of marriage but to no one. But marriage won't occur without someone to wed to; and consequently, wedding to no one would still make Kant unmarried. Therefore, the mental confirmation of a negative statement (unmarried) would have the same meaning; and thus, the same ontological implications as the mental confirmation of its respective direct opposite (married to no one). Applying this linguistic analysis on "quantum particle ¥ is caused by nothing", we can directly infer that particle ¥ is caused by nothing. But since nothing cannot be a cause; therefore, ¥ is not caused. Thus, we can deduce the equivalent proposition: "quantum particle ¥ is uncaused". This analysis of the sameness of the two propositions is merely linguistic; nevertheless, why do we still hold tight to the imaginative episode of a thing emerging into being without a cause?

Simply because there is still one last and final proposition that this imagined episode might be grounding, which is the case of unperceived causation.

With this being said, since the propositions are logically equivalent, then whatever reason proves about one of them, it is necessarily and equally applicable to the second. Now since "caused by nothing" leads to a logical impossibility, then "uncaused event" would be also impossible. The argument runs as following:

7) If two propositions are the same, then whatever falls logically from one of them, is also applicable to the other. (premise)

8) "Caused by nothing" leads to a contradiction; and thus, it is impossible. (definition).

9) Consequently, "uncaused event" is also equally impossible. (conclusion)

Let me utilize the two previously said propositions, "the morning star" and "the evening star" in order to clarify the above argument. Frege contends that these two propositions co-refer, i.e. they have the same reference, and in my use of the term they are ontologically equivalent in regards to the star they are both signifying. Even though they are linguistically and phenomenologically different and they denote two different state of affairs, yet they refer to the same star which is Venus. Therefore, whatever has been known about Venus in any of the propositions, would also be valid about Venus in the other proposition. This is because the morning or the night has no effect over Venus and does not change the truth value of any proposition regarding Venus. But is it always the case that whatever is true about a co-referring proposition is also true about the other? Or we can find a case where a state of affair would be true about "the morning star" but false about

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"the evening star"? Yes, we can find a situation where a state of affair is true about "the morning star" but false about "the evening star" if and only if the truth of that state of affair is correlated with a set of factors that are only true in the morning and not in night, and the same applies otherwise. For instance, the proposition "the evening star shines brightly" might be true during the evening and false during the morning, and thus we cannot claim that Venus shines brightly. The difference in the intensity of the brightness of Venus, in ordinary cases, is due to the light of the sun that makes other stars invisible or less bright during the day. Therefore, it is false to attribute the degree of intensity of light to Venus itself. In another instance, consider the proposition "the night star is the second-brightest natural object in the sky". This might also be false during the day as the moon might be the second brightest object after the sun during the morning. Consequently, we cannot attribute to Venus the trait of being the second-brightest natural object in the sky, as this characteristic is conditional to a set of factors distinct from Venus (the presence of other bright objects). On the other hand, take for the sake of argumentation that the scientist studying the night star observed that "the night star has a volume of 9.28 x 10^{11} Km". In this case, the volume is not a derivative of relations other than the star itself; consequently, we can safely deduce that Venus is 9.28 x 10^{11} Km in volume, and that "the morning star has a volume of 9.28 x 10^{11} Km".

From what has been said, in order to maintain ontological equivalence, or to maintain the truth value of a state of affair about a single referent denoted by two or more co-referring propositions, then the state of affair under study should not be true in terms of other factors other than the referent itself. The problem is then to identify such factors and

distinguish them from factors whose truth value is related to the set of conditions unexclusive to the referent. In reference to the two propositions under investigation, "uncaused event" and "caused by nothing", the latter epistemological problem is not an issue as both propositions entail the absence of any contributing factor to the becoming of the object referred by the respective propositions. Therefore, from a linguistic analysis, it is still applicable that the two propositions are ontologically equivalent, and that whatever follows from one of them will necessarily imply to the other.

Finally, since both propositions "uncaused event" and "caused by nothing" are impossible, then the only rationally accepted case grounded by the imagined scenario of a thing emerging into existence without a cause is the case of unperceived causation. That is, it is possible that the thing emerges into existence by means of n unperceived cause; and since this is the only possibility for the imagined scenario, it is necessarily true. Finally, to summarize the above series of argumentation, the below syllogism re-captures the defense for the necessity of the causal principle.

6.7. The Argument in a Nutshell

From what has been said, the argument for the necessity of the causal principle can be summarized as such:

1) Imagined Scenario: We can imagine a thing beginning to exist without imaging a cause. (basic assumption)

2) We can find three different cases each of which has the same imagined scenario as in premise 1:

   2.1) Uncaused event.

   2.2) Caused by nothing.

   2.3) Unperceived cause. (premise)

3) An imagined scenario can only ground the possibility of a proposition after confirming the absence of any hidden impossibility within the propositions. (conceivability principle)

4) We can find two ways to uncover any hidden impossibility within a proposition:

   4.1) Rational analysis, and this can be done in the following ways:

       4.1.1) By analyzing its causes or set of premises leading to the proposition.

       4.1.2) By analyzing its implications or set of consequent premises.

       4.1.3) By analyzing its equivalent whether an exact equivalent or a conjugate.

   4.2) By figurative representation or imaginative induction. (Theorem to uncover hidden impossibilities)

5) We can only analyze 2.1 by means of an exact equivalent. (from the sense of 2.1)

6) The exact equivalent proposition for a certain statement is the one that has the same necessarily correspondence to the same ontological reality. (ontological equivalence principle)

7) "Caused by nothing" has the same ontological correspondence as "uncaused event". (premise)

8) Therefore, "uncaused event" is equivalent to "caused by nothing". (from 6&7)

9) "Caused by nothing" is impossible by means of 4.1.2 (definition of nothingness)

10) If two propositions are equivalent, then what is logically deduced from one of them, is logically deduced from the other. (ontological equivalence premise)

11) Therefore, "uncaused event" is equally impossible. (from 9 & 10)

12) Consequently, unperceived causation is the only possible case that the imagined scenario grounds. (from 11 & 2)

13) The causal principle, i.e. whatever begins to exist must have any cause for it's existence, is either:

13.1) Necessary

13.2) Possible

13.3) Impossible (premise)

14) If the causal principle is possible, then it is possible for a thing to come into existence uncaused. (premise)

15) It is impossible for a thing to come into existence uncaused. (from 11)

16) Causation is not impossible as there is no contradiction within the principle. (premise)

17) Therefore, the causal principle is necessarily true. (from 13 & 15 & 16)

6.8. Consequences from the Demonstration of the Principle

The causal principle has been demonstrated in a certain manner such that the proven necessity has limitations over the applicability of the principle. Substantially, the proof has been established based on general notions of "nothingness", "cause', and "effect" without

relating specific causes to specific effects. Therefore, we cannot employ the principle to prove the necessity of definite causation, e.g. "the sun produces heat". The principle only governs the necessity between any cause and any effect. In other words, it advocates the stance that for a thing to begin to exist, there should be any existent that brings the effect into existence. Therefore, the relation between specific causes and specific effects remains contingent. As long as we can perceive a soothing fire, then it remains a possibility. Consequently, Hume's analysis on causation would only be applicable to specific causation rather than to the general principle itself. The possibility for a specific causal instant to change is grounded within the comprehensibility and/or imaginability of the scenario, aka Hume's analysis. But the imaginability of a thing being otherwise by no means can extend to ground the possibility of an uncaused event. The proof of the latter was the aim of this thesis, and has been established in the previous section.

Furthermore, Hume, as noted earlier, did not take into account the possibility of unperceived causation. And in fact, I have shown that the scenario that Hume relies on to prove the possibility of an uncaused event, vis-à-vis, perceiving a thing emerging into existence without imagining a cause, does not ground Hume's conclusion that causation is not necessary. Instead, what it does is that it provides the grounds for the possibility of an unperceived causation. Add to that, since the proof shows that for a thing to begin to exist, there must be at least a cause, and given the fact that we can imagine a thing beginning to exist without imagining a cause, i.e., we cannot imagine an unperceived cause, because such a cause is unavailable to perception; however, we can conceive of an unperceived

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cause as the cause of the thing, then we can conclude that it is necessary that whatever begins has a cause, any cause, and it is possible for that cause to be unperceived.

6.9. Refutations

In this section, I will be discussing two counterarguments and then clarify the fallacies behind each one of them. I hope I can meet my reader's objectivity by my proper demonstrations of the respective refutations.

6.9.1. Counterargument 1: Defeating Necessary Correspondence

This counterargument accepts the notion of necessary correspondence, yet it denies that the argument employs this principle correctly. The notion of necessary correspondence necessarily implies that to each proposition there is a specific referent such that what makes that referent what it is, is fully identified and properly described by the proposition, in a manner that we cannot find any other alteration of that referent described by the proposition. But since we can find several referents to each of the propositions "uncaused event" and "caused by nothing"; therefore, the argument fails to employ the principle of necessary correspondence; and thus, fails to ground the ontological equivalence between those two propositions. The below table identifies the different possible referents of each of the two propositions:

Table 4- Ontological Differences between "uncaused event" and "caused by Nothing"

Referent State	Uncaused Event	Caused by Nothing
Complete non-existence	✓	✓
Complete existence	✓	✗
At least one void (non-existence)	✓	✓
Multiple voids (non-existences)	✓	✓

✓: applicable   ✗: not applicable

In the above table, we can infer that each of the said propositions are possible in different state of affairs; and thus, have different possible referents. Consequently, there is no one specific referent that each of the propositions refer to. Therefore, the argument fails to correctly employ the notion of necessary correspondence; and thus, fails to ground its conclusion.

The counter refutation is that the said refutation misunderstands the notion of necessary correspondence. It is true that the referent should be specific and does not handle several designators, yet this is also applicable to all propositions that are multiples of notions that themselves correspond necessarily. The table above lists the different state of affairs under which the respective propositions under study are applicable (or not). On the other hand, each proposition under the "referent state" has a single and necessarily corresponding state of affair or reality, such that there are no multiple referents designated by any one of them. There is no gap between the notion of "nothingness" and of "existence" with their ontology. These are the notions of the highest abstractions that our

mind can ever achieve, and thus any existent would fall under the concept of "existence" and would thus be necessarily corresponding to the proposition. And similarly, there is exact correspondence between the concept of nothingness and "nothingness" whether in the case of complete non-existence, or one void, or multiple voids, regardless of whether these notions are possible or not. So, this calls for a new redefinition of the notion of "necessarily correspondence". Before demonstrating this definition, I need to clarify how we can necessarily correspond to the notion of "existence", meanwhile, as we noted earlier, specific existents don't, vis-à-vis the case of the "elephant" – an elephant who lost its tail is still an elephant; therefore, there is no necessary correspondence regarding the notion of elephant. In other word, why does correspondence fail when we discuss specific existents and still holds when we talk about existence in general? Simply because in order for an idea to necessarily correspond to its referent, there should be an exact understanding of what makes that thing what it is. We should have the God-knowledge of things. So, when we discuss specific existents, we discuss our perception of them, or a fragmented understanding, or we create an insufficient definition of them; and thus, the notion we have of them isn't necessarily corresponding to their reality. Meanwhile, this issue isn't found when we talk about the general notion of existence, as any existent would satisfy and thus correspond to the notion of existence. However, we set the below definition of necessary correspondence to accommodate several necessarily corresponding propositions under the proposition under investigation.

For every proposition that is true under several other propositions would still correspond to a state of affair if and only if all the respective following propositions necessarily correspond to their respective state of affairs.

Consider proposition P to have several states of affairs that are described by propositions: $P_1, P_2, P_3 \ldots P_n$, then P would also necessarily correspond to any state of affair if and only if all the respective propositions under P also necessarily correspond to a reality. This translates to:

P: $\{P_1, P_2, P_3 \ldots P_n\}$ would necessarily correspond (>>) to a state of affair X

If and only if, $P_1, P_2, P_3 \ldots P_n$ each necessarily correspond (>>) to a state of affair $\{R_1, R_2, R_3 \ldots R_n\}$ under which X obtains.

In other words, if P is true under any of its respective state of affairs described by propositions $\{P_1, P_2, P_3 \ldots P_n\}$, then it will still necessarily correspond to a state of affair X, if and only if the propositions describing respective state of affairs $\{P_1, P_2, P_3 \ldots P_n\}$ necessarily corresponds to realities $\{R_1, R_2, R_3 \ldots R_n\}$ under which X obtains.

So, lets investigate the propositions under study in the lens of this definition of necessarily correspondence.

P: "uncaused event" necessarily corresponds (>>) to X: "a thing beginning into existence without any connection to anything else".

P: "uncaused event": is true under: $\{P_1:$ <complete non-existence>, $P_2:$ <complete existence>, P_3 <at least one void>, P_4 <multiple voids>$\}$

{P_1: P_2: P_3 P_4} necessarily corresponds (>>) to {R_1, R_2, R_3, R_4}

P_1: <complete non-existence> >> R_1: "nothing existing" / correspondence on "non-existence"

P_2: <complete existence> >> R_2: "continuum of existence" / correspondence on "existence"

P_3: <at least one void> >> R_3: "at least one nothing" / correspondence on "existence" & "nothing

P_4: <multiple voids> >> R_4: "multiple non-existence" / correspondence on "existence" & "nothing"

X can obtain under {R_1, R_2, R_3, or R_4}, since in any of the cases, a thing can exist without any metaphysical connection to anything else.

Therefore, P necessarily corresponds to X.

The crux of this analysis is that P: "uncaused event" would still necessarily correspond to X: "a thing emerging into existence without any metaphysical connection to anything else" even though there are multiple cases in which the proposition "uncaused event" is true, if and only if each of these cases necessarily correspond to a reality under which X obtains. We can still conceive of a thing emerging into existence without any connection to anything else in each of the cases tabulated above such that each case necessarily corresponds to a reality. Under this understanding "uncaused event" would still necessarily correspond to "a thing emerging into existence without any metaphysical connection to anything else". And the same reasoning applies to "caused by nothing". In simpler and more general terms, if we can necessarily correspond by notions of alpha &

beta, then we can also necessarily correspond by any of their combinations. Since we can correspond by using the notions of "existence" and "non-existence", then we can similarly correspond by any of their combinations mentioned in the table above.

6.9.2. Counterargument 2: Defeating Ontological Equivalence

This counterargument deduces from the above table the non-equivalence of the two propositions "uncaused event" and "caused by nothing". Since in the case of "complete existence", the proposition "caused by nothing" is not applicable, simply because there is no non-existence to refer to by the proposition, then we cannot really establish an exact ontological equivalence. Therefore, we can claim that in the case of "complete existence", the two propositions cannot be ontologically identical, and thus, we cannot conclude the impossibility of "uncaused event" from the impossibility of "caused event".

Well, although the counterargument looks appealing, yet it is based on a confusion between the surrounding circumstances entailed by the proposition and the factors contributing to its truth value. Since both propositions "uncaused event" or "caused by nothing" describe a thing emerging into existence without any connection to anything else, then there is nothing in the described surrounding that plays a role or efficacy in that emergence. Consequently, the focal point of these two propositions is designating the unconnected emergence of a thing regardless of any existents or non-existents in the surroundings. Substantially, since neither "nothingness" nor any "existent" has any contribution to the emergence of the thing under study, then there is no major concern about the background whether there is complete existence, or complete nothingness, or multiple voids. Therefore, the correspondence lies within the fact that the thing emerged is

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unconnected to anything else. Thus, we don't need non-existence to give a truth value for the proposition "caused by nothing", nor do we need any existent to give a truth value for the proposition "uncaused event". Finally, we can conclude that the non-applicability of "caused by nothing" in the state of "complete existence" is not an issue to jettison its ontological equivalence with "uncaused event".

CHAPTER 7

CONCLUDING STATEMENT

In chapter one, I provided a short history of the causal principle and shed light on the notion of necessity attributed to causation since the pre-Socratic era. Furthermore, I provided three main philosophers who delivered the same critique of causation before Hume. After that I specified the different dimensions of the problem of causation from which I identified the scope of the thesis.

In chapter two, I introduced Hume's epistemology of what is known as "Hume's Fork". Afterwards, I narrated Hume's analysis of what could be the origins of the necessity attributed to causation. And finally, I provided Hume's two definitions of cause and some of the philosophers' interpretations of Hume's definitions.

In chapter three, I delivered Hume's critique of the causal principle and argued that there are two major critiques: 1) absence of necessity in impressions, 2) conceivability of a cause as distinct from effect. The main focus of this paper is the second critique, and as I showed in the later chapters that the second critique can be interpreted as two distinct arguments: 1) an argument based on the imaginability of the scenario of a thing emerging into existence without a cause, and 2) conceiving that the idea of the beginning of existence is distinct from the idea of a productive principle. Moreover, I shed light on Hume's understanding of "conceive" and "imagine" and discuss the importance of imagination in the formation of knowledge according to Hume.

In chapter four, I introduced the conceivability principle and conceivability arguments, provided some examples from different fields of philosophy, and argued that Hume's critique of the causal principle has the form of a conceivability argument. Furthermore, I demonstrated Hume's grounding and defense of the conceivability principle. Finally, I introduced the principle of Separability and showed how Hume's understanding of the distinctness of causes and effects relates to the principle. I then demonstrated the consequences of this principle on our comprehension of causation.

In chapter five, I discussed the five major refutations of Hume's analysis and then I defended Hume against them all. These can be categorized as such: 1) On the conceivability principle and Hume's Fork. 2) On the conceivability of cause and effect. 3) Arguments undermining imagination as a guide to possibility. 4) Arguments that qualify imagination as a guide to possibility with restrictions. 5) Arguments Rejecting Imagination as a guide to possibility. And finally, I presented my refutation to Hume's critique from both perspectives: imaginative and linguistic/analytical.

In chapter six, I demonstrated my own grounding of the necessity of the causal principle. I have argued that the propositions "uncaused event" and "caused by nothing" are ontologically equivalent; and thus, whatever is logically applicable to one of them necessarily follows for the other. And since "caused by nothing" leads to a contradiction; therefore, it necessarily follows that "uncaused event" is similarly impossible. Furthermore, I raised two major counterarguments and offered their respective refutations. Finally, I have shown that the principle is only applicable to the general relation between cause and effects, and it does not ground the relation between specific effects to their specific causes.

I hope this thesis meets the expectations of my readers and convinces them of my understanding of the necessity of the causal principle.

ENDNOTES

[i] The authors defend premise 7 that stipulates that if it is necessarily possible that the conceivability principle is false, then conceivability is not conclusive evidence for possibility, via the below argument (Does Conceivability Entail Metaphysical Possibility, page 6):
1) Entailment is supposed to be a relation of necessary truth preservation
2) If p entails q, then whenever p is true, q must be true.
3) Thus, whenever it is conceivable that p, q is metaphysically possible – as a form of necessary entailment (from 1&2 modus ponens)
4) Thus, conceivability of p is conclusive evidence for the possibility of q
5) In light of premise 3 above, it is possible that p is conceivable, and q to be false, - and thus, conceivability is not a conclusive evidence for the possibility of q.

[ii] This is one critique of the argument I offer here. There are further criticisms the authors mention in their paper and successfully deal with them summarized as such:

Response 2 & Refutation:

Claim 2: Conceivability principle only applies to modal claims and not to meta-model claims. The proponents of the claim distinguish between modal claims having a structure of 'it is possible that p' or 'necessarily p', and meta-modal claims having a structure of 'it is possible that there are no other possible worlds". And they argue that the principle under study only applies to proposition of the former and not the latter. The point at stake is that modal imaginations are like telescopes that permit us to examine other possible worlds. The modality behind this notion is that if we can perceive state of affairs in a possible world, then it follows that there must be a possible world in which that state of affairs exists. The proposition here has a form of "it is possible that p", and not "it is possible that there are no other possible worlds"; and thus, has a modal-form. On the other hand, we cannot zoom out our imaginative telescope to gaze the whole display of possible worlds on one occasion (which is a meta-model framework). Thus, the foundation for considering conceivability as a guide to possibility does not apply to suppositions about the existence or non-existence of certain possible worlds, as the above argument seems to do. However, the authors reply by considering the Spinozistic deity as principled response to the objection.

1) The possibility of existence for such a deity is based on modal not meta-model, yet it may entail certain meta-model claims.
2) To say the deity is possible is to assert that there is some possible world that has a certain description. The conceivability of a Spinozistic deity either entails its possibility or it does not.
3) If it is possible, then conceivability is a guide to a meta-model truth by being a guide to modal truths with meta-model implications. This is because our reasoning is about

a world where the deity is possible (modal), based on which the possibility of further worlds is investigated (meta-modal).

4) If the conceivability of a deity in a possible world is not possible, then the conceivability principle itself becomes false, because we can conceive of a thing that isn't possible.

Response to 5:

Premise 5: If it is possible that the conceivability principle is necessarily false, then conceivability principle is false (by S5: $\Diamond\Box p \to p$ is provable from $p \to \Box\Diamond p$]
The claim here is to argue that premise 5 is not applicable in this situation. The friends of this response provide an example to show the oddity of employing premise 5 in such cases.

1) It is possible that Hesperus and Phosphorus are distinct.
2) Therefore, by 5, it is possible that it is necessarily false that Hesperus is Phosphorus.
3) Thus, Hesperus is not Phosphorus.

Which is a false conclusion.
However, the authors respond back that the stated refutation is based on an equivocation between "Hesperus is Phosphorus" in the actual world, and "Hesperus is Phosphorus" in an alternative world where these are distinct. And there is no equivocation while employing it to the conceivability principle since it does not contain rigid designators (page 9).

I tend to agree with Mizrahi and Morrow's following replies. However, the argument fails to prove its point as discussed in the first point.

REFERENCES

1) Aquinas, Thomas. (1973). "The Five ways." Summa Theologica, Part 1. Trans. by the English Dominican Fathers. Reprint in: P. Edwards and A. Pap (eds.). A Modern Introduction to Philosophy. Third edition. 408-10. London/New York: The Free Press.

2) Aristotle. (1984). *The Complete Works of Aristotle*, i and ii. Ed. J. Barnes. Princeton, NJ.

3) Berkeley, G., & In McCormack, T. J. (1906). *Three dialogues between Hylas and Philonou*s. Chicago: Open Court Pub. Co.

4) Berkeley, George, 1685-1753. (1982). *A Treatise Concerning the Principles of Human Knowledge*. Indianapolis: Hackett Pub. Co.

5) Boulter, Stephan (2011). *The Medieval Origins of Conceivability Arguments*. Oxford, UK: Blackwell Publishing.

6) Chalmers, D. (1996). *The Conscious Mind*. Oxford: Oxford University Press.

7) Chalmers, D. (2002). *Does Conceivability Entail Possibility?* in T. Gendler and J. Hawthorne eds.) Conceivability and Possibility, Oxford: Oxford University Press.

8) Chalmers, D. (2009) "The Two-Dimensional Argument against Materialism" in B. Mc Laughlin(ed.) Oxford Handbook of Philosophy of Mind, Oxford: Oxford University Press.

9) Chalmers, D., and F.Jackson (2001) "Conceptual Analysis and Reductive Explanation," Philosophical Review 110: 315–360.

10) David Hume, An Abstract of a Book Lately Published in *A Treatise of Human Nature*, edited by L. A. Selby-Bigge, 2nd ed. revised by P. H. Nidditch (Oxford: Clarendon Press, 1978).

11) Descartes, René, Oeuvres de Descartes, eds. Charles Adam and Paul Tannery, Paris: Vrin, originally published 1987-1913.

12) Dicker, G. (1998). *Hume's Epistemology and Metaphysics: An Introduction*. London and New York: Taylor & Francis Group.

13) Dorsch, Fabian (2015). "Hume on the Imagination", *The Routledge Handbook of Philosophy of Imagination Routledge*.

14) Dutton, Blake. 2011. "Al-Ghazali on Possibility and the Critique of Causation", Loyal University Chicago.

15) Dunphy, William. 1966. "Peter of Auvergne and the Twofold Efficient Cause." Medieval Studies 28: 1-21.

16) Fiocco, M. (2007) "Conceivability, Imagination and Modal Knowledge," Philosophy and Phenomenological Research 74: 364–380.

17) Furlong, *E. J. Imagination in Hume's Treatise and Enquiry Concerning Human Understanding*, Philosophy, 1961 (36), pp. 62-70.

18) G. S. Kirk, J. E. Raven, and M. Schofield. 1991. *The Presocratic Philosophers*. Cambridge: Cambridge University Press.

19) Geirsson, H. (2005) "Conceivability and Defeasible Modal Justification," Philosophical Studies 122: 279–304.

20) Gore, W. C. *The Imagination in Spinoza and Hume*. Chicago: University of Chicago Press, 1902.

21) Greig, J. Y. T. (ed.). The Letters 01 David Hume. 2 vols. Oxford: The Clarendon Press, 1932.

22) Hughes, G. E., and Cresswell, M. J. (1996) *A New Introduction to Modal Logic*. Routledge.

23) Hulswit, Menno. 2002. *From Cause to Causation*. A Peircean Perspective. Dordrecht: Kluwer Publishers.

24) Hume, David. 1739-40/1978. *A Treatise of Human Nature*. Edited by L. A. Selby-Bigge (1888). Second edition revised by P.H. Nidditch. Oxford: Oxford University Press.

25) Hume, David. 1748/1975. *Enquiries Concerning Human Understanding and Concerning the principles of Morals*. Edited by L.A. Selby-Bigge (1777). Third edition revised by P.H. Nidditch. Oxford: Oxford University Press.

26) Hulswit, Menno. 6500 HC , University of Nijmegen, The Netherlands.

27) Ichikawa, J.,and B.Jarvis(2012) "Rational Imagination and Modal Knowledge", Noûs 46: 127–158.

28) Inwood, Brad, and L. P. Green (eds.). 1997. *Hellenistic Philosophy*. Second edition. Indianapolis: Hackett.

29) Jackson, F. (1998*) From Metaphysics to Ethics: A Defense of Conceptual Analysis*, Oxford: Oxford University Press.

30) Klima, Gyula (ed.). 2007. *Medieval Philosophy.* Oxford: Blackwell.

31) Kripke, S. (1980) *Naming and Necessity*. Cambridge, MA: Harvard University Press.

32) Kung, P. (2014) "You Really Do Imagine It: Against Error Theories of Imagination," Noûs 49(3), early view, <http://dx.doi.org/10.1111/nous.12060>.

33) Kung, P. (2010) "Imagining as a Guide to Possibility," Philosophy and Phenomenological Research 81620–663.

34) Levin, J. (2011) "Imagination, Possibility, and the Puzzle of Imaginative Resistance," Canadian Journal of Philosophy 41: 391–422.

35) Lewis, Clarence Irving. & Langford, Cooper Harold (1932). *Symbolic logic*, New York Century Co.

36) Lewis, D. (1976) "The Paradoxes of Time Travel," American Philosophical Quarterly 13: 145–152.

37) Lightner, Tyceruim. (1997). "Hume on Conceivability and Inconceivability". Hume Studies, Volume 23, Number 1, April 1997, pp. 113-132 (Article).

38) Locke, John. *An Essay Concerning Humane Understanding*. 1st ed. 1 vols. London: Thomas Basset, 1690.

39) Long, AA. 1996. *Stoic Studies*. Cambridge: Cambridge University Press.

40) Malebranche, 1674-5, Lennon & Obecalp Trans.; In Nadler, 1992: p. 94f.

41) Johnson & Shlomo Libeskind, Non-Euclidean Geometry Topics to Accompany Euclidean and Transformational Geometry, Melissa, Jones and Bartlett Publishers.

42) Mill, J. S. 1874: A System of Logic. New York: Harper & Brothers.

43) Moti Mizrahi and David R. Morrow (2014), *Does Conceivability Entail Metaphysical Possibility*, 2014 John Wiley & Sons Ltd Ratio (new series) XXVIII 1 March 2015 0034-0006.

44) Peacocke,C. (1985) "Imagination, Experience, and Possibility: A Berkeleian View Defended," in J.Foster' and H.Robinson(eds.) Essays on Berkeley, Oxford: Clarendon Press.

45) Peter Kung. 28 Jan 2016, "Imagination and modal epistemology", *The Routledge Handbook of Philosophy of Imagination.* Routledge.

46) Plato. (1971). Timaeus and Critias. Trans. D. Lee. Penguin Classics. Harmonsworth Middlesex: Penguin books LTD.

47) Putnam, H.(1975) "The Meaning of 'Meaning,'" in K. Gunderson(ed.) Language, Mind and Knowledge, Minnesota Studies in the Philosophy of Science, vol.7, Minneapolis: University of Minnesota Press, 131–193.

48) Robinson, J. A. (1962) "Hume's Two Definitions of 'Cause'," The Philosophical Quarterly 12 (April): 162– 71; reprinted in V. C. Chappell (ed.) Hume: A Collection of Critical Essays , Garden City, NY: Doubleday, 1966, pp. 129– 47.

49) Shepherd, Mary (1824). *An Essay Upon the Relation of Cause and Effect*. London. T.Hookham, Old Bond Street.

50) Shoemaker, S. (1993) "The First-Person Perspective," Proceedings of the American Philosophical Association 68:7–22; repr., N. Block, O. J. Flanagan, and G. Güzeldere (eds.) The Nature of Consciousness (Cambridge, MA: MITPress,1997),503–515.

51) Simon, Blackburn (1996). *The Oxford Dictionary of Philosophy.* New York: Oxford University Press.

52) Smith, Norman Kemp. "The Naturalism of Hume (I)," Mind (N.S.), 190 5 (14), PP· 149-73·

53) Taylor, Harold. "Hume's Theory of Imagination," University of Toronto Quarterly, 1943 (12), pp. 180-190.

54) Van Inwagen, P. (1998) "Modal Epistemology," Philosophical Studies 92: 67–84.

55) Wilbanks, Jan (1968). *Hume's Theory of Imagination.* The Hague, Netherlands: Martinus Nijhoff.

56) Yablo, Stephen. Is Conceivability a Guide to Possibility? Philosophy and Phenomenological Research, Vol. 53, No. 1 (Mar., 1993), pp. 1-42. Published by: International Phenomenological So.