Hume's Missing Shade of Blue reexamined

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Abstract

David Hume, known as a strict empiricist, posits that all perceptions are divided into impressions and ideas. Except for a lower degree of vivacity, ideas directly resemble their corresponding impressions. This is the core of Hume’s ‘copy principle,’ which claims that all ideas are simply copies of their corresponding more lively impressions. Following his statement of this principle, however, Hume gives a counterexample to it in the form of a thought experiment, the Missing Shade of Blue. Many critics have taken this counterexample as proof that Hume is weakening his empirical claims and, even, that he is contradicting himself. I, however, argue that these criticisms arise out of a misunderstanding of Hume’s philosophical works. Furthermore, I show how the inclusion of the thought experiment actually reconciles with and strengthens Hume’s copy principle by way of triangulation. In a more general scope, I believe the usefulness of my research sheds some light on a topic that, if even considered at all, has been somewhat muddled in a gray area.

I. Introduction

One of the major divisions among Western philosophers of the 18th century was between rationalists and empiricists. The debate between rationalism and empiricism centers on whether our knowledge can have non-sensible and non-empirical sources or whether it is solely dependent on sensory experience. On the one hand, the rationalist claims that there is knowledge that can be gained independently of sensory experience. On the other hand, the empiricist claims that experience is the sole and foundational source of all our knowledge. Rationalists also claim that certain types of knowledge are innate. Descartes, for example, argues that our concept of God as an infinitely perfect being is innate. This concept of God is not directly obtained through sensory experience, in the manner that our concepts of cats and trees are obtained, namely through tastes, smells, sights, and sounds. Instead, we are born with it. Conversely, empiricists
generally accept John Locke’s *tabula rasa*\(^1\) argument for the way the mind works. According to Locke, it is sensory experience that feeds knowledge into our minds. For empiricists, the innate ideas proposed by rationalists are either fictitious or must be considered derivative of our experience.

David Hume, born in Edinburgh in 1711, is one of the most influential empiricists of the 18\(^{th}\) century. Well known as being a historian and essayist, Hume’s philosophical works influenced future thinkers such as Immanuel Kant and Charles Darwin.\(^2\) As an empiricist, David Hume also makes this rejection of innate ideas and acceptance of sensory foundationalism the core of his philosophy. Known as a strict empiricist, Hume takes the empirical ideas of John Locke and George Berkeley to an extreme. For example, unlike Locke and Berkeley, both of whom stray from a strictly empiricist approach when proving God’s existence\(^3\), Hume maintains that any evidence must come from our senses. This is evident in Hume’s *copy principle*, which states that all of our ideas are weaker yet exact copies derived from what he terms *impressions*. Furthermore, these *impressions* themselves, according to Hume, derive immediately from sensory experience.

Perhaps Hume’s most notable works in philosophy are *A Treatise of Human Nature* and *An Enquiry Concerning Human Understanding*. Hume published the *Treatise* upon returning to England in 1737 after attending a Jesuit college in France. It received very little literary notice and was ‘dead-born from the press,’ as Hume put it in an autobiographical publication written in

\(^1\) Latin for “blank slate” and refers to Locke’s theory that at birth no knowledge we have is innate. The mind is, therefore a “blank slate” waiting to be filled with data obtained through sensory experience.


\(^3\) Both John Locke and George Berkeley were prominent empiricists of the 18\(^{th}\) century. Locke claims that our knowledge of God comes from our *intuition* and Berkeley claims that God is himself an infinite spirit. Patricia Sheridan, “Locke’s Moral Philosophy”, *The Stanford Encyclopedia of Philosophy*, Section 2.3. Lisa Downing, “George Berkeley”, *The Stanford Encyclopedia of Philosophy*, Section 3.1.3.
1776. His strict empiricism, seen in opposition to religious teachings, garnered him the reputation of an atheist. As a result, contemporary authors and thinkers of the time consistently scrutinized and denounced Hume’s philosophical works throughout his life. Disappointed in the failure of the *Treatise*, Hume released what he thought was a more concise and focused presentation of his principles in the *Enquiry* roughly fifteen years later. In a public advertisement he boldly stated that “he was sensible of his error in going to the press too early, and he cast the whole anew in the following pieces, where some negligence in his former reasoning and more in the expression, are, he hopes, corrected.” Hence, the *Enquiry*, which received a greater readership when compared to the *Treatise*, was, to Hume, very much a fine tuning of his *Treatise*. Yet, even after fifteen years of contemplation and revision, the *Enquiry* retains some items virtually unchanged, among them the one that is of importance to this study: Hume’s example of the Missing Shade of Blue.

The Missing Shade of Blue is a thought experiment that Hume conjures early on in both the *Treatise* and *Enquiry*. Essentially, this thought experiment proposes that not all ideas derive from impressions. This, in turn, ostensibly presents a problem for Hume by conflicting directly with his copy principle, which states the opposite. Thus, it is surprising to find the Missing Shade of Blue brought into Hume’s texts, especially so soon after he established the copy principle. The inclusion of both the copy principle and the Missing Shade of Blue in the *Treatise* and *Enquiry* shows that Hume was intent on bringing forth both points. However, by doing so he raises

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4 David Hume, “My Own Life”.
5 David Hume, “Author’s Advertisement”, *An Enquiry Concerning The Principal of Morals*.
6 Going forward, ‘Missing Shade of Blue’ refers to Hume’s thought experiment, while ‘missing shade of blue’ refers to the deficiency in the final shade of blue not presented in the experimental set-up of the thought experiment.
several doubts about his core philosophy. The following is Hume’s main formulation of the Missing Shade of Blue:

Suppose, therefore, a person to have enjoyed his sight for thirty years, and to have become perfectly acquainted with colours of all kinds except one particular shade of blue, for instance, which it never has been his fortune to meet with. Let all the different shades of the colour, except that single one, be placed before him, descending gradually from the deepest to the lightest; it is plain that he will perceive a blank, where that shade is wanting, and will be sensible that there is a greater distance in that place between the contiguous colour than in any other. Now I ask, whether it is possible for him, from his own imagination, to supply this deficiency, and raise up to himself the idea of that particular shade, though it had never been conveyed to him by his senses? I believe there are few but will be of opinion that he can. And this may serve as a proof that the simple ideas are not always, in every instance, derived from the correspondent impressions, though this instance is so singular that it is scarcely worth our observing and does not merit that for it alone we should alter our general maxim (T 1.1.1.10).

On the surface this sounds as if Hume is contradicting his own philosophical principles. He is, after all, committed to the empiricist claim that sensory experience is the sole source of our ideas. Specifically, Hume seems contradictory by presenting an example that directly refutes his copy principle, which stipulates that “each simple idea is a ‘copy’ of the simple impression that it is derived from.” However, a detailed analysis of both the missing shade of blue as well as of other areas in both the Treatise and Enquiry will in fact demonstrate that his inclusion of the missing shade was not only justifiable, but that it serves to strengthen his principles. In particular, the inclusion of the thought experiment, strengthens his copy principle rather than diminish it. Furthermore, my analysis shows how Hume critically assesses his own theories allowing for the adaptability of the Missing Shade of Blue to be a part of them. Finally, my paper

7 David Hume, A Treatise of Human Nature (T. 1.1.1.10). Further abbreviated as Treatise.
shows how Hume’s critical assessment contextually, linguistically, and rhetorically ties the
Missing Shade of Blue into the Treatise and Enquiry.

II. Breaking Down The Missing Shade of Blue

In the excerpt above, Hume states that the Missing Shade of Blue ‘serves as proof’ and
‘is an instance’ in which his copy principle is violated. This instance, to Hume, is so singular it
does not warrant a change in his principle, yet it still warrants the simple idea of the missing
shade as an exception. To understand why Hume considered the Missing Shade of Blue as
presenting an exception to his principle that every idea derives from a corresponding impression,
it is first necessary to define these two terms, idea and impression, as well as to break down the
example itself.

According to Hume, all of our experience divides into two categories, which he labels
impressions and ideas. For Hume, impressions are simply livelier experiences than ideas. In
other words, ideas represent faint images of their corresponding impressions. An understanding
of this distinction serves to provide a clearer picture of Hume’s philosophy.

Specifically, Hume states that “first circumstance, that strikes [his] eye, is the great
resemblance betwixt our impressions and ideas in every other particular, except their degree of
force and vivacity.”9 This means that impressions and ideas are virtually identical aside from
force and vivacity, namely that impressions are more vivid than ideas since they are sensations.
The key here is that force and vivacity are referring to a difference in degree rather than a
difference in kind.10 For example, when comparing the sensory experience of an apple with the

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9 Treatise, (T 1.1.1.3).
10 In other words, a difference in kind focuses on the distinction and difference between two objects or
ideas, while a difference in degree focuses on their similarities and resemblances.
memory of an apple, Hume says that experiencing the apple is livelier even though every aspect of the memory may be the same as the actual experience. Thus, because of this almost identical resemblance Hume makes a bold general principle when stating that our ideas are simply fainter versions, or copies, of our more lively impressions. Furthermore, he does not feel it is too difficult a concept to grasp when he writes the following in the first paragraph of the *Treatise*: “I believe it will not be very necessary to employ many words in explaining this distinction. Every one of himself will readily perceive the difference between betwixt thinking and feeling (T 1.1.1.1).”¹¹ Turning back to our example of the apple, *feeling* equates to the impression of an apple, whereas *thinking* relates to the idea of an apple. Therefore, the difference between feeling and thinking, according to Hume, is comparable to the difference between impressions and ideas; the difference being that of degree rather than kind. Hume, however, does not stop at this one distinction between ideas and impressions.

His second categorization of our experience comes from the distinction that he establishes between what he calls ‘simple’ and complex’. According to Hume, both impressions and ideas can either be simple or complex. That is, there are now four categories of impressions and ideas: simple impressions, simple ideas, complex impressions, and complex ideas. The main distinction between simple and complex, Hume argues, is that simple impressions and ideas cannot be broken down further. In other words, simple impressions and ideas are the building blocks of their complex counterparts. Here Hume brings in the following example about an apple to illustrate this point: “Though a particular colour, taste, and smell, are qualities all united in this apple, it is easy to perceive they are not the same, but are at least distinguishable from

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¹¹ Ibid, (T 1.1.1.1).
each other (T 1.1.1.2). Thus, it is the fact that we can conceive of the properties of the apple, such as its color and taste, in other objects that make the idea of the apple itself a complex idea. If, on the other hand, we examine the individual property of color in the apple, red in this instance, it then becomes possible to consider it as a simple idea for the very reason Hume stated. The actual shade of red that we perceive through our sight, in contrast, is a simple impression. Again, this divergence between the memory of the shade of red in an apple with the sensory experience of the apple is simply that of one in degree. It is these distinctions regarding ideas and impressions as well as simple and complex that concern Hume’s Missing Shade of Blue example.

Turning, in light of these distinctions between impressions and ideas, to Hume’s Missing Shade of Blue, I find it helpful to break apart the thought experiment into five parts in order to understand what Hume is aiming at. These five parts are chronologically important and are as follows:

1. An individual must have experienced, through sight, a vast range of colors over an extended period of time.

2. The individual must have become “perfectly acquainted” with all shades of blue except for one.

3. All shades of blue, less the one the individual had not experienced, are placed in front of him in descending order. Doing this does not seem practical in the sense that in order to place all but one shade of blue in front of the individual, it requires the person placing the colors to know both of all the shades of blue as well as which shade the individual is

\[12\] Ibid, (T 1.1.1.2).
lacking in. Thus, although the thought experiment can work out in our minds, it is not applicable in an empirical setting.

4. The individual will first perceive a blank where the missing shade ought to be. This blank is essentially the individual noticing the variance between the contiguous colors of the missing shade of blue. Hence, perceiving a blank, in this instance, is not literal but more like realizing that another shade should be in between the two already known shades of blue.

5. Finally, the individual will be reasonable and, from his own imagination, fill in the missing shade even though he has not experienced it.

Bringing to mind Hume’s initial claim that all ideas are merely fainter copies of their corresponding impressions, it seems that the now-no-longer-missing shade of blue does not fit the mold here, for it is an idea that came about without a corresponding impression. The setup of the thought experiment, namely its unique and singular nature, according to Hume, is the reason he does not consider the Missing Shade of Blue a threat. Additionally, he did not elaborate on the thought experiment or explicitly explain it in any greater detail. This move by Hume initially made the inclusion of the missing shade in both the *Treatise* and *Enquiry* even more difficult to defend. However, looking at the example in the five divided parts makes for a better analysis for both Hume’s reasoning as well any counterclaims made by contemporary philosophers.

III. *The Missing Shade of Blue: Exception, Not a Threat*

Looking at the steps of Hume’s thought experiment, the first two are critical in allowing the individual to progress to the next phase of the Missing Shade of Blue, eventually reaching the simple idea of the missing shade of blue. Without having had the experience of all the other
shades of blue it becomes an impossibility to come up with the now no longer missing shade, save for being able to experience it via sensory means. The role of the first two steps of my analysis of the thought experiment, thus, is to serve as the foundation that the final shade of blue depends on. This means that although the missing shade of blue itself is a simple idea that comes about without a corresponding impression, it still requires prior experiences as a foundation for its emergence. The prior shades of blue themselves, however, were indeed impressions since Hume states that the individual became “perfectly acquainted” with them. Since no prior impression of the final shade of blue exists to allow for a copy, the mind fulfills the copy principle through reasoning with the prior experiences it does have impressions of. Therefore, as a result of this dependence on prior experience, Hume did not see the Missing Shade of Blue as a threat. Hence, the importance, at least in part, of the Missing Shade of Blue “is that it is the first of several cases Hume gives of ideas which the mind, working on precedent [experience], is able to form by its own activity.”  


Given the function of these preceding experiences, or shades of blue, I label them secondary impressions in this instance. This is contrary to their primary function of being distinct impressions for their own simple ideas of shades of blue via the copy principle. The label itself is strictly for prior simple impressions that have a specific secondary function of laying a foundation when placed in a spectrum. In the Missing Shade of Blue this refers to the already acquired shades of blue, which caused their own corresponding simple ideas. Those simple ideas of other shades of blue, in turn, lead to the missing shade of blue by way of the remaining three parts of the thought experiment.

This construct of secondary impressions as well as abstract reasoning creates what Hume calls habits or customs in an individual. According to Hume, an individual creates a causal
inference, which leads to the creation of a habit or custom. Within the thought experiment, we do this via a combination of our secondary impressions along with our ability to infer, abstractly, about the notions of cause and effect and their relation to shades of blue. Hence, this ability to make inferences about causality, for Hume, allows an individual to use prior experiences of shades of blue to create a generalization. The generalization then sets up a benchmark to measure against when necessary. For example, if an individual has several experiences of objects falling when dropped, the individual will eventually come to the generalization that objects will fall when let go of. Additionally, this generalization, or habit, is now applied to future experiences even though there may arise a situation when an object does in fact not fall when dropped. In the Missing Shade of Blue we have a spectrum of shades of blue, or secondary impressions, that couple with abstract reasoning, or our ability to tell the difference between shades through causal inference, in order to form a habit. The habit then allows us to move forward in the thought experiment by allowing the individual to infer about the comparable differences in the two adjacent shades to the missing shade of blue, namely that they are not in line with the rest of the spectrum. This realization equates with Hume’s notion of being able to perceive the blank within the spectrum. Meaning that the individual does not need to perceive an actual blank but rather realize a disturbance in the continuity of the spectrum before being able to fill in the missing shade of blue.

D.M. Johnson analyzes Hume’s principle of habits and customs in greater detail. Johnson claims that “for a person to reconstruct a shade he never saw before, he must have developed an appropriately detailed ‘habitual spectrum’.”14 This spectrum is essentially composed of the different shades of blue that the individual previously experienced, or the third division in our

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analysis of the Missing Shade of Blue. The parts of the spectrum themselves are simple ideas obtained through sensory means. However, individually these simple ideas are not in direct connection to each other, meaning that they are separate and distinct simple ideas. Furthermore, Johnson extends his idea by stating that each simple idea is itself *sui generis*¹⁵ and that it is the steadily obtained habit that puts the simple ideas into certain relations. The previously experienced shades of blue in front of the individual, thus, do not have any necessary direct relation to each other. Rather, it is the individual that imposes the relation through the use of a habit. Individually, the shades of blue are merely simple impressions while collectively the individual gives them the function of secondary impressions. Hence it is these habitually imposed connections that allow the individual to conceive of the missing shade of blue.

Linking the third part of our analysis of the Missing Shade of Blue, the spectrum presented to the individual, to the fourth part, the perception of a blank by the individual, further showcases how the final shade of blue comes about through secondary impressions. Hume’s first claim within the thought experiment is that the individual first perceives a gap where the shade should be. However, this alone requires having knowledge of certain abstract¹⁶, or complex, ideas. The function of these abstract ideas allows the individual to form the necessary habits that the final part of the thought experiment requires. Essentially, the man of thirty years who has experienced all but one shade of blue “will have made many of those several comparisons of which colors are susceptible and formed the abstract ideas of hue, brightness, and saturation –

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¹⁵ *Sui generis* is a term that refers to the unique, deterministic, and/or qualitative nature of something. Generally used in contrast to something that is quantifiable or universal.

¹⁶ Abstract, in this sense, contrasts with concrete ideas. Specifically, abstract is referring to objects that are not spatial. Hence, objects like mathematics are considered abstract while objects such as trees and rocks are considered concrete.
determinate forms of the abstract idea of degree of quality that take as more determinate forms the abstract ideas of the distinct hues and their distinct shades. “17

These abstract ideas of hue, brightness, and saturation are necessary conditions in order to move from the ‘perceiving a blank’ step of the Missing Shade of Blue to the ‘filling in the blank’ step. However, these abstract ideas are obtained in the same fashion that Hume has set up in his initial principle; namely that all ideas precede their impressions save for the type of idea of the missing shade of blue. Hume takes note of this in the Treatise when he writes: “Ideas produce images of themselves in new ideas; but as the first ideas are supposed to be derived from impressions, it still remains true, that all our simple ideas proceed either mediately or immediately, from their corresponding impressions (T. 1.1.1.11).” 18 Hume, therefore, clearly saw that his initial principle still holds true, even of the Missing Shade of Blue. Accordingly, he did not find it to be a threat since it is foundationally dependent on the individual’s command of secondary impressions through the use of the abstract ideas of hue, brightness, and saturation that led to the final shade of blue.

Looking now to the transition between part four, perceiving the blank, to part five, filling in the blank with the missing shade of blue, it becomes evident that the individual has a firm grasp of what hue, brightness, and saturation are with respect to the spectrum of blue shades presented in front of him. Furthermore, although the distinction between lightness and darkness as well as hue initially applies to a spectrum of shades of color, the individual should then be able to distinguish these features in a single shade. 19 Thus, the habit firmly established through prior experience fills the initial blank with the no longer missing shade of blue. Looking at the

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17 William Williams, “Is Hume’s Missing Shade of Blue a Red Herring,” 91.
18 Treatise, (T 1.1.1.11).
19 Karann Durland, “Hume’s First Principle, His Missing Shade, and His Distinctions of Reason,” 111.
general exception, the individual experienced various shades of blue, which were each themselves distinct ideas without any necessary relations to each other. Over the course of time, and more experiences, however, these distinct ideas began to appear connected through the individual’s habits created from prior experiences. The individual then uses these benchmarks to measure the difference in hue, brightness, and saturation among the secondary impressions against the perceived blank, eventually filling in the gap with the final shade of blue. The habit does this by way of generalizing, categorizing, and comparing the secondary impressions in relation to the perceived blank. Therefore, it is a distinction of reason that creates the relation between the shades within Hume’s spectrum, giving the individual the ability to arrive at the missing shade of blue.

The distinction of reason that makes this possible yet non-contradictory for Hume is discussed in the Treatise as well. When discussing abstract ideas, Hume gives us the following example:

Thus when a globe of white marble is presented, we receive only the impression of a white colour disposed in a certain form, nor are we able to separate and distinguish the color from the form. But observing afterwards a globe of black marble and a cube of white, and comparing them with our former object, we find two separate resemblances, in what formerly seemed, and really is, perfectly inseparable. After a little more practice of this kind, we begin to distinguish the figure from the colour by a distinction of reason; that is, we consider the figure and colour together since they are in effect the same and undistinguishable; but still view them in different aspects, according to the resemblances, of which they are susceptible. When we consider only the figure of the globe of white marble, we form in reality an idea of both the figure and colour, but tacitly carry our eye to its resemblance with the globe of black marble (T 1.1.7.18).²⁰

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²⁰ *Treatise*, (T 1.1.7.18).
What Hume discusses here is the progression of initial sensory experiences in connection with the ability to reason allowing the individual to be able to dissect and categorize the initial inseparable experience. This system of progression, like that of the Missing Shade of Blue, is still dependent on the function of secondary impressions combined with abstract reasoning. In this case, the *habit* allows the individual to be able to distinguish between form and color similar to the filling in of the final shade of blue in the thought experiment. Thus, the missing shade is simply an exception to the rule in the same manner of one arriving at the idea of a gray colored block or globe. Although Hume does show a refinement of how ideas form in the above example, he still considers the Missing Shade of Blue a mere exception. This is on the basis that the missing shade of blue comes about mediately from impressions as opposed to immediately from them. Similarly, our capacity to distinguish form from color comes about mediately from the impressions of the different colors and shapes that we previously experience. Through the use of the marble globe and block example, therefore, we see not only an extension of the concept behind the Missing Shade of Blue but a reinforcement of why Hume thought his general maxim need no alteration.

IV. *Hume’s Copy Principle & Causality*

According to David Landy, Hume’s *copy principle* rests on two conditions that allow it to function. Landy identifies these two conditions as the following:

1. The Resemblance Condition – which stipulates that the ideas an individual forms are exact representations of the impressions that they have felt.
2. The Causal Condition – a notion which states that an individual’s ideas are caused by their impressions and not vice versa.\(^{21}\)

Additionally, Landy states that both conditions are “necessary and jointly sufficient.”\(^{22}\) This means that an idea is required to meet both of these conditions in order to qualify as a copy. Therefore, if the final shade of blue fails to meet either condition, it gives us reason to say that Hume’s copy principle no longer holds. Since, however, the resemblance condition requires us to have both the idea and impression of the final shade of blue in the spectrum, it is not testable. In the Missing Shade of Blue, the individual obtains the simple idea of the final shade of blue, not its corresponding impression. Furthermore, Hume does not mention that the individual will receive the impression of the final shade after having the simple idea of the final shade of blue. Thus, in order to see if the Missing Shade of Blue debunks Hume’s copy principle, we need to see if it violates the causal condition set forth by Hume.

For the idea of the final shade of blue to violate the causal condition, it needs to cause the impression of the final shade of blue. In other words, a reversal of the causal order between ideas and impressions has to occur. Nancy Kendrick introduces this argument with her concept of temporal order. Specifically, she focuses on ‘reversed temporal order’\(^{23}\) when making her claim that it is often confused with ‘reversed causal order’. Kendrick succinctly states this when writing that the “idea of the missing shade of blue provides an exception to this temporal priority claim, but this reversed temporal relation does not provide sufficient grounds for supposing the causal relation to be reversed.”\(^{24}\) Thus, when looking at the Missing Shade of Blue, Hume does

\(^{21}\) David Landy, “Hume’s Impression/Idea Distinction,” 125.
\(^{22}\) Ibid, Pp. 127.
\(^{23}\) The temporal priority principle states that all causes must precede their respective effects.
\(^{24}\) Nancy Kendrick, “Why Hume’s Counterexample is Insignificant and Why it is Not,” 970.
not imply that the simple idea of the found shade of blue causes the impression of it but rather that in this instance it simply came before it. In fact, Hume does not even mention anything else about the impression of the found shade other than that its simple idea came before it. This alone, does not violate the causal condition.

Suppose, however, that we extend Hume’s thought experiment and say that after the individual found the missing shade of blue, we present the individual with paint along with a canvas asking him to mix together the final shade of blue. The individual should then be able to paint the found shade solely from the simple idea of the found shade. However, even if the individual is able to paint the found shade, it still does not show the reverse in causal order, or that the idea caused the impression. The question raised now is whether the simple idea or a sensory experience caused the impression of the final shade of blue. Thus, it is not possible to use an empirical test to see if the simple idea of the found shade causes the impression. Given this argument, therefore, there is simply not enough evidence to say that a violation in the causal condition or, by extension, the copy principle occurs. The copy principle then not only maintains its initial claims but simultaneously acknowledges and accepts the exception brought about before it. This, however, does not mean that the thought experiment itself is not altering the way in which Hume’s principle functions. A deeper analysis of Hume’s own view on the matter sheds light on this.

V. Hume's Self-Criticism

Hume’s writing, both in the Treatise and Enquiry as well as beyond, shows that he takes nothing on faith and self-critically analyzes and questions even his foundational principles. This is already notable in the fact that he took fifteen years to chisel away at the inessential portions of
the *Treatise* as well as concisely restate his philosophy in the *Enquiry*. Furthermore, he is critical of and publicly calls his own work, the *Treatise*, a ‘juvenile work’ in the same advertisement previously mentioned. Hence, we see that Hume constantly scrutinized himself, and took great care with his words. Looking closely at the *Treatise* itself also reveals this level of care, specifically regarding the Missing Shade of Blue.

The first instance from our analysis compares Hume’s copy principle that *all* ideas are copies of and arise from impressions, to the main formulation of the Missing Shade of Blue. Hume’s initial principle is stated as a universal rule, namely due to the fact that Hume uses the word *all* in his formulation of the principle. After mentioning the thought experiment as an exception, however, Hume subsequently refers to the principle only as a “general maxim.”

Unlike universal rules, general maxims allow for exceptions. As such, a valid general maxim “only needs to be true, as Aristotle stated regarding the maxims of his *Ethics*, ‘for the most part.’” Although subtle in nature, Hume does slightly change his reference to the copy principle after mentioning the Missing Shade of Blue. There is, however, a more direct example that follows later in the *Treatise*.

When discussing causal relations between ideas and impressions in the *Treatise*, Hume also presents a critique directly related to his previously mentioned Missing Shade of Blue. Here Hume directly addresses his firmly established copy principle, specifically with regards to any proof that may come up against it. The following quote targets examples like the Missing Shade of Blue that may arise:

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25 *Treatise*, (T 1.1.1.10).
Shall the despair of success make me assert, that I am here possest of an idea, which is not preceded by any similar impression? This would be too strong a proof of levity and inconstancy; since the contrary principle has already so firmly established, as to admit of no farther doubt; at least till we have more fully examined the present difficulty (T 1.3.2.12).27

In other words, the evidence backing the copy principle so great that, if there is such an idea that precedes its impression, then it would definitely warrant further examination. Hume, therefore, does not recommend a simple tossing aside of the general maxim since it has a great deal of empirical support. Rather, any contrary proofs need additional examination and empirical backing in order to determine if they are truly contradictory. Hume’s reasoning here takes into consideration his very own Missing Shade of Blue, which is in fact an exception. It, however, is not a contradictory one since the idea of the missing shade of blue comes about through secondary impressions coupled with abstract reasoning. Hume is, however, open and willing to accept any contrary proof as long as it is based on empirical evidence.

Another self-critique from Hume appears right after the Missing Shade of Blue in the Treatise. Specifically, Hume makes distinctions between what he terms primary and secondary ideas. Primary ideas are simply copies, or images, of our impressions, while secondary ideas are copies of primary ideas. Hence, we have a similar form of triangulation that presented itself within the Missing Shade of Blue. Hume goes on to say that this “is not, properly speaking, an exception to the rule so much as an explanation of it.”28 The reason this case is an explanation of the principle is because the foundation of both secondary and primary ideas are still impressions. It just so happens that in this case, there is a third step in between the two. Thus, a similar form of triangulation occurs as it did between our previously defined secondary impressions and

27 Treatise, (T 1.3.2.12).
28 Treatise, (T 1.1.1.11).
simple ideas. That is, an impression yields a secondary impression, which, in turn, yields a simple idea when coupled with abstract reasoning.

In the Missing Shade of Blue, this takes place between the previously experienced shades of blue, the function of these previous shades as secondary impressions when coupled with abstract reasoning, and the simple idea of the final shade of blue. The difference between the two cases, however, is large enough for Hume to admit that the Missing Shade of Blue case is an exception while stating that the primary and secondary ideas case is not. Therefore, as Nancy Kendrick concludes, we see that “while [the Missing Shade of Blue] does present a counterexample to the principle in the ways discussed above, [it] similarly serves as an explanation of, and even support for, Hume’s most basic empirical aims.” Furthermore, Hume’s explanation shows that he was well aware of the similar nature of the Missing Shade of Blue, with that of primary and secondary ideas, and sees it as no threat.

VI. Possible Arguments against Hume’s Missing Shade of Blue Defused

There are several contemporary philosophers that present different arguments against Hume showing how the Missing Shade of Blue weakens his empirical position. The arguments range from attacking the language within the text itself, specifically that of the Missing Shade of Blue, to Hume’s credibility directly. Each argument presented, however, stems from a misunderstanding of either Hume’s thought experiment or his empirical claims. The first argument against the Missing Shade of Blue deals with Hume’s claim about the example’s singularity. Specifically, Hume’s claim about the missing shade being a singular instance does not seem to be the case. Bernard Rollin, for example, writes that Hume’s exception is “far from singular” and that it is in fact “generalizable to an infinite number of such spectral cases, such as
regular gradations of musical tones, smells, and so forth.”29 In other words, Hume’s thought experiment does not need to focus just on shades of color but anything that is arrangeable in a spectrum. For example, the thought experiment is equally applicable to a spectrum of sound arranged in tonal order. In this example, the individual can arrive at the missing tonal sound in the same manner as Hume’s thought experiment. Therefore, it seems reasonable for Hume to either adjust his principles to account for this generalized exception or explicitly dismiss the thought experiment. He, however, does neither.

Rollin’s argument concerning the singularity of the missing shade of blue is defused when looking at the reasoning associated with Hume’s method of categorization. When Hume states that the “instance is so singular,” he essentially categorizes the example of the missing shade of blue as a type of idea within a series of other ideas. Karann Durland, for example, places the exception as a “simple idea of a member of a special sort of series, a series of simple sensibles (such as shades of the same hue) that differ from one another only by degree.”30 Therefore, the categorization of the missing shade of blue is that of a type of idea that can fit into a spectrum of sorts. The spectrum can be of shades of color, differences in tone, or any other similar idea that can be a part of a series within a spectrum. Hence, the type of idea that the missing shade of blue falls under is in fact singular in nature. Durland borrows this concept from Robert Fogelin, who argues that the missing shade of blue is a member of this singular type of idea because after having experienced all the other shades of blue the subject just needs to “produce a specific peg to fit a determinate hole provided for it.”31 This means that any missing idea within a spectrum presented before an individual falls under the same type of idea as the

29 Bernard Rollin, “Hume’s Blue Patch and the Mind’s Creativity,” 120.
missing shade of blue. Upon examining the so called ‘infinite’ amount of such cases involving senses like taste, smell and hearing, the common link, namely that each of the missing ideas in all the cases fits within a spectrum, places all such cases into this singular type of category. Thus, we can say that all ideas like the missing shade of blue are just different instances of this singular type. The function of each of those instances as an exception to Hume’s copy principle is, however, identical to that of the missing shade.

A more common criticism of Hume directly focuses on how his Missing Shade of Blue contradicts the very principles he previously mentioned as well as further elaborated on in both the Treatise and Enquiry. Specifically, the attacks are generally in reference to the copy principle established by Hume in the beginning of the Treatise and Enquiry. What this implies is that if the missing shade of blue is a valid exception it should debunk the copy principle as a whole. After all, the copy principle cannot hold if the missing shade, according to Hume, is an instance where a simple idea does not have a corresponding impression. Furthermore, if the missing shade of blue was indeed an exception it would warrant an empirical explanation for the dismissal of such an exception.

In order to know why the argument against Hume’s copy principle is not well grounded, we first need a deeper understanding of the principle itself. The two main points to keep in mind are that simple ideas are fainter copies of their corresponding simple impressions and that simple impressions precede simple ideas. With this in mind, the problem of the missing shade tends to be with the latter portion of the principle. This causal relation between ideas and impressions is what generally attempts to invalidate Hume’s entire copy principle. Durland, again, provides an argument for why Hume’s copy principle need not worry. She argues that since the exception is
founded on *a priori* grounds, it is more “illusory” and essentially is more of a “complex [idea] rather than simple.” However, this reasoning is itself very weak in that Hume himself regarded the missing shade of blue as an exception to his *copy principle*.

Donald Livingston, on the other hand, makes a strong case for Hume when claiming that the exception actually gives Hume the leverage he sought for his *copy principle*. He states the following:

Moreover, the idea in question is described as the sort of idea for which an internal mastery could be achieved in the usual way and, in any case, is in fact achieved by the conditions of the hypothetical example. So whatever account we give the exception, it is stated in such a way as to be parasitic upon the very sort of internal understanding the first principle is supposed to capture. Hume, then, can be confident that for this sort of “exception” whatever modifications are necessary will be minor, need not be explored at the outset, and so should not affect the basic utility of the principle.

Livingston is essentially saying that since the simple idea itself is dependent on the simple ideas of the other shades of blue, which the individual did obtain through impressions. This ‘internal mastery’ that Livingston speaks of is simply referring to the function of what we previously termed secondary impressions coupled with abstract reasoning. In other words, as we already mentioned, the causal relation between ideas and impressions still holds. Hence, though the simple idea of the missing shade of blue itself may come before its simple impression, the fact that the attainment of the missing shade rests on the impressions of the other shades of blue does not invalidate the *copy principle*. Rather, the causal relations would now come in the order of

32 *A priori* is generally referred to as knowledge that is completely independent from experience. Conversely, *a posteriori* is referred to as empirical knowledge gained through sensory means. The issue here is that, as an empiricist, Hume is using and easily dismissing an exception that does not seem viable on a posteriori grounds.

33 Karann Durland, “Hume’s First Principle, His Missing Shade, and His Distinction of Reason,” 106.

impressions, secondary impressions, and then the simple idea of the missing shade of blue. Our previous argument about the triangulation that occurs in order to obtain the missing shade of blue, therefore, diffuses these so called threats to Hume’s copy principle.

When considering an explanation of the Missing Shade of Blue, we run into more problems simply because of the nature of the very example itself. Looking back at Hume’s thought experiment, which yields the missing shade of blue, the main issue becomes how he can argue for the missing shade as an exception. Specifically, empirically verifying the thought experiment proves to be futile. That is, after the individual has the idea of the missing shade of blue they should now be able to empirically prove to a third party that they in fact did obtain the missing shade. Bernard Rollin brings this issue forward and argues that Hume’s missing shade of blue “cannot be tested on these grounds since the act of actually verifying the test would in essence nullify the test itself.”

According to Rollin, this occurs because we no longer know whether the individual obtained the simple idea prior to the impression he has just presented the third party. Suppose, for example, the individual has paint from all the previously experienced shades of blue and needs to prove that he has obtained the final shade by painting it on a surface. Even if the individual mixes the appropriate shades and does paint the final shade, it becomes unclear if the individual obtained the idea of the final shade prior to its impression. In other words, Hume’s example of the Missing Shade of Blue is one that formulates on a priori grounds while not being testable through a posteriori means. Hence, any attempts at empirically verifying the thought experiment would in fact nullify the very purpose of the attempt.

When considering the problem of validity of the exception as an exception, we can refer to our previous breakdown of the Missing Shade of Blue. Firstly, it is important to note what Hume is requesting of his readers when bringing up the counterexample. Specifically, when stating that the subject will first “perceive a blank” and then fill it, Hume is using deductive reasoning as his basis for arriving at the missing shade of blue. This means that the example itself is arrived at using purely logical reasoning as opposed to empirical evidence, which would have had to be obtained through sensory perception. Thus the missing shade is seen as being grounded as an *a priori* example.

Knowing this, it becomes clear that Hume was intent on labeling the Missing Shade of Blue as an exception, unlike his categorization of primary and secondary ideas. If there was an idea that came prior to its impression, then it would in fact need to be grounded in *a priori* and have no empirical evidence in order to truly be an exception to Hume’s first principle. This very notion of the type of example that Hume presents in essence is the thing that makes the Missing Shade of Blue a valid exception. Attempting to prove the creation of the simple idea through an *a posteriori* test has the opposite effect in that, if proven true, it would show that the causal link between impressions and ideas is gray at best. This, however, is not a problem for Hume because it simply shows that the thought experiment he presents is indeed an exception while simultaneously not being a threat since testing it on *a posteriori* grounds proves inconclusive. An argument for changing the example to a different kind using different sensory perceptions may be tempting at this juncture.

Any attempt made to find an example that can show the validity of Hume’s exception using an *a posteriori* test must simultaneously not nullify the causal condition set by Hume’s copy principle. Instead of shades of color, suppose different pitches of tones were used.
Furthermore, the subject would then have experienced each different pitch except for one. In the same fashion of the Missing Shade of Blue, the subject would be able to fill in the blank for the tone after first perceiving as a “blank.” However, when comparing the tonal example to Hume’s Missing Shade of Blue it is clear that they both have the same validity problem. That is, no such \textit{a posteriori} test can disprove the causal condition without nullifying the very purpose of the test. Furthermore, this is true for all such similar cases involving other sensory experiences. Hence, leaving the type of example as an \textit{a priori} exception seems to work better for Hume’s sake with regards to the Missing Shade of Blue being a true exception.

The next argument against Hume focuses on the process of the thought experiment itself. Doing this, also poses a potential problem for Hume as well. Specifically, the issue deals with the concept of innate ideas as a result of the process of the thought experiment. William H. Williams takes note of this problem when stating that “the construction of the idea of the missing shade of blue obviously requires conceptual powers unaccounted for by impressions and their images.”\textsuperscript{37} Looking back at our analysis of the Missing Shade of Blue, the necessity of a certain level of abstract reasoning is evident in order for the missing shade of blue take shape. While Hume does not acknowledge the Missing Shade of Blue as being able to shake his foundation, the thought experiment shows that Hume’s exception might have cause to be a valid innate idea. Setting aside our previous argument for the triangulation of the missing shade, the possibility of the final shade of blue being an innate idea does present itself since it comes about without any corresponding impression. This in its own right should raise a red flag for Hume and warrant at least an explanation by him, a philosopher in the empiricist school.

\textsuperscript{37} William Williams, “Is Hume’s Missing Shade of Blue a Red Herring,” 87.
At this juncture, defining exactly what we mean by an *innate idea* is appropriate. There are three ways in which these words may apply in the context of the missing shade of blue:

1. An idea that is inborn and a part of a person from birth.\(^{38}\)
2. An idea that does not come about from experience.
3. An idea that comes about from a generalization of an experience.

With regards to Hume’s missing shade, only the latter two definitions apply. As a strict empiricist, Hume is completely opposed to the notion that inborn innate ideas existed. When the *Treatise* and *Enquiry* focus on the copy principle as well as Hume’s general claim about the divisions of knowledge, they both show how experience was the precursor to ideas and knowledge. Hence, when looking at the missing shade of blue as an innate idea, it has to be an idea that either does not come about from experience or comes about from a generalization of an experience.

The second definition of *innate ideas* is the one that can hurt Hume’s case, specifically, his principles relating to the causal connection between ideas and impressions. If indeed there is an idea that does not come about through an experience, then the validity of empiricism as a whole begins to falter. However, the missing shade of blue case appears to fall most in line with the third definition of *innate ideas*. A generalization of prior experiences, in this case the secondary impressions of the other shades of blue, leads to the simple idea of the final shade of blue. Barry Stroud makes the distinction by calling them observed and unobserved ideas. Observed ideas come directly from experience, while unobserved ideas come from

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\(^{38}\) This is the notion of innate knowledge proposed by rational philosophers like Descartes, who believed that humanity’s knowledge stemmed from the innate principles that were received from birth (generally attributed to God).
generalizations of prior experiences. Hume himself states that the process of generalizations take ideas from the observed distinction to the unobserved when discussing the formulation of our habits or customs. When viewing the case of the Missing Shade of Blue, it is the faculty of reason that generalizes prior experiences of the various shades of blue into the various gradations that eventually lead to the simple idea of the missing shade of blue. Thus, though the missing shade is an innate idea by our third definition, it is not strictly innate. Meaning, in the rational sense the simple idea of the missing shade of blue is still dependent on the generalization of past experiences.

Regarding innate ideas, Nancy Kendrick brings forth a reasonable problem that she argues many have with Hume. Specifically, her issue is with Hume’s dismissive attitude of the missing shade of blue. According to Kendrick, the possibility of the simple idea being an innate idea itself can be damaging enough to Hume’s first principles. She claims that many argue Hume intentionally dismisses it because the inclusion of it would leave an even greater threat to his philosophy, specifically the notion of a synthetic a priori\(^\text{40}\) idea. This, in essence, means that people can have new ideas on the basis of things outside of their experiences. In other words, it would have supported an anti-empirical claim. This claim can then be taken and supportive of greater claims such as the existence of God in favor of the rationalists. Rationalists then have become right with regards to their notions of innate ideas as well as the origin of ideas. For Hume, that would mean the negation of his philosophical principles that he so strongly establishes in both his Treatise and Enquiry. However, we already argued that innate ideas, in

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\(^{40}\) Synthetic a priori was a principle introduced by Immanuel Kant and essentially states that new ideas can be formed from a purely conceptual realm.

\(^{41}\) Proving the existence of God was a major debate between philosophers of both the rational and empirical schools during Hume’s time. Shifting the balance in this specific argument generally meant having more solid proof for either school’s philosophical principles.
this instance, refer to generalizations based on previous experiences, or the formulations of habits and customs.

This being so, the problem initially raised by Kendrick about whether or not the missing shade is a *synthetic a priori* idea is defused. Since Hume’s exception, as previously mentioned, is grounded strictly in *a priori*, it cannot be referred to as being *synthetic*. Even though the ideas used to attain the missing shade of blue are they themselves *synthetic*, since they were experienced, the idea of the missing shade itself is not. The idea of the missing shade of blue is somewhat of a fiction in this sense. It is a fiction because it forms within the mind but has no valid way of presenting itself outside of the mind. The latter was evident when we looked at the futility of trying to empirically prove a violation within the causal condition of the copy principle. Hume, therefore, does not need to consider the missing shade of blue as an *innate idea* a serious threat beyond the dismissal and labeling of it as an exception to his general maxim.

Lastly, the ability to find the missing shade of blue may prove difficult for Hume given various writings on optics. Eric Schliesser, for example, has argued that Hume’s missing shade of blue stands “in contradiction to the implications of Newton’s optical researches.”42 More directly, Schliesser’s main point shows how Hume does not take Newton’s insights regarding the difficulty of finding the missing shade of blue into account and “turn an objection into a constructive element in an ongoing research enterprise.”43 Newton’s optical experiments indicate that when the shades of colors get close enough it becomes impossible for the subject to be able to distinguish between shades. Hence, if Newton’s research is correct, then Hume’s entire example would at the very least raise questions and not be seen as an exception. Additionally,

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43 Ibid, Pp 164.
Schliesser points to the following passage from the *Treatise* to show how Hume is once again contradicting himself: “it be impossible to judge exactly of the degrees or any quality, such as colour, taste, heat, cold, when the difference betwixt them is very small.”[^44] When considering the demands of Hume’s thought experiment, it seems contradictory that he requires the subject to make the determination in degrees of shades of blue while several pages later in the *Treatise* he himself claims that it is impossible to make such determinations in degree.

Taking this further, Schliesser focuses on Hume’s approach as resting on two apparent “commonsensical, but unempirical tacit assumptions: that we view (shades of) colors as discrete entities and that our experiences and knowledge of the world does not influence what we see.”[^45] Essentially Schliesser is arguing that if Hume is leaning on the first assumption that different shades of blue are individually distinct ideas, then bringing these ideas together for a similar purpose, in this instance to find the missing shade, becomes difficult. Finally, taking into account the notion of Newton’s Rule IV,[^46] Schliesser shows that deviations from maxims should not warrant a simple dismissal, like Hume tends to do with the exception of the missing shade of blue. Instead, they should promote new research and findings.

Newtonian arguments against Hume by Schliesser, however, are insufficient as well. Firstly, Hume acknowledged the main issue of the impossibility of being able to distinguish between two shades of color in the *Treatise*. However, even in granting this to be the case, we may tailor the thought experiment itself so that it meets the new criterion. The experiment can now just be a bit more specific and state that the previously experienced shades of color placed

[^44]: *Treatise*, (T 1.3.1.2).
[^46]: Newton’s Rule IV states that propositions should be treated as true until there are deviations from such propositions. These deviations, however, should promote new research and a refinement or rejection of the original propositions.
before the individual be in a degree that is distinguishable. This will not change the outcome of
the individual being able to fill in the missing shade of blue. As a result, Hume is both agreeing
with Newtonian optics but still maintaining his exception on the grounds of a more broad
distinction of shades presented in the thought experiment. Additionally, Hume’s dismissal of the
exception does not preclude his philosophy from finding Newton’s Rule IV as a useful tool. It is
in fact quite the contrary as we previously discussed when analyzing Hume’s self-critique.
Essentially, Hume is definitely open to the idea of further examination but felt that the missing
shade of blue did not make any real impact on his initial claims regarding ideas and impressions.

Finally, the difficulty of being able to bring two distinct ideas together is really not as
difficult as Schliesser claims it is. Difficulty, in this sense, is referring to how well Hume’s
claims can allow for such collaboration between ideas. It is relatively clear in both the Enquiry
and Treatise that Hume does believe in the ability for distinct ideas to be used by the faculty of
reason, or ‘imagination’, in order to serve a third related purpose. The initial impressions that
turn into simple ideas, according to Hume, are necessities in order for one to form ‘customs’,
‘habits’, and fictional ideas not found in reality. For example, the initial impressions that one has
of a horse and various birds can cause their imagination to come up with the idea of Pegasus
even though no such creature exists. This is also the case for the missing shade of blue with the
surrounding shades serving as secondary impressions and the mind going through a process of
abstract reasoning in order to arrive at the missing shade. In both cases, the abstract ideas formed
through the faculty of reason are what create the relation between not only the various distinct
secondary impressions but also to the idea of final shade of blue.

VII. Conclusion
Although Hume’s Missing Shade of Blue appears to contradict his initial claims about the relation between impressions and ideas in his copy principle, my analysis shows that this is not the case. Hume’s copy principle holds in this unusual case by way of triangulation among impressions, secondary impressions, and the simple idea of the missing shade. From this, I then moved onto discussing how Hume’s principle allows for the Missing Shade of Blue to be a valid exception while simultaneously not a threat to his core commitments. I accomplished this by analyzing the components of my initial break down of the thought experiment. Then, upon looking at Hume’s copy principle in greater detail, I established that the causal condition between ideas and impressions remained intact. From this point I transitioned into Hume himself, specifically, his character and self-critique of his works. My focus here was to argue that given Hume’s character and nature, it is evident that the inclusion of the Missing Shade of Blue, as Hume intended, strengthens his *Treatise* and *Enquiry*.

Finally, I made the transition into critiquing various arguments that might be made against Hume. The arguments discussed dealt both broadly and specifically with Hume’s Missing Shade of Blue. In a broad sense, I looked at arguments targeting the function of the thought experiment, the principles it relates to, such as the copy principle, as well as its surface contradictions. More minutely, I looked at arguments within the actual thought experiment. These include: Hume’s quick dismissal of the thought experiment, the missing shade’s ability to be a valid innate idea, and the issue surrounding the thought experiment’s singularity. All of the arguments against Hume, however, were easily refuted as they stemmed mostly from misunderstandings of the Missing Shade of Blue within the context of Hume’s empirical philosophy. My analysis therefore, shows that Hume’s thought experiment in fact strengthened
his claims by allowing for greater versatility. As a result, we see a more open-minded and critical Hume.
References


