

THE TRACTATUS, LOGICAL SPACE, AND ZOMBIES

Serdal TMKAAYA*

ABSTRACT

Here I shall discuss three closely interrelated points that connect the Tractatus to the contemporary analytical philosophy of mind. The first is the notion of Logical Space. The second involves the imaginability-based nature of the Tractarian notion of (logical) possibility. The last point is that the Tractarian notion is too broad to the extent that it embraces both metaphysical and nomological possibility. In this paper, I argue that because the metaphor of logical space strictly depends on the notion of logical possibilities, the boundaries of logical space are too undetermined. If that is true, how could we know if, for example, zombies are logically possible or not? However, the zombie argument is the sort of example frequently used to argue against physicalism. Then, in the case of the incoherency in the notion of logical space, the zombie argument would become somehow problematic. If that is the case, it might have repercussions for the conceivability arguments in the field of the analytical philosophy of mind. The Tractarian notion of logical space is a curiosity in its own right as an earlier variety of modal metaphysics, but it has a wider significance for the recent metaphysical arguments often used in the analytical philosophy of mind.

Keywords: Wittgenstein, Logical Space, Logical Possibilities, thought experiments, Reality, conceivability, the Zombies argument, a priori arguments, varieties of modality

(Tractatus, Mantıksal Uzam ve Zombiler)

ZET

Bu alıřmada, muhtemelen Tractatus'u aędař analitik zihin felsefesiyle iliřkilendirebilecek ve birbirleriyle yakından iliřkili u meseleyi tartıřacaęım. İlki Dnya, Gereklik ve Olgu Durumları Baęlıamları arasındaki iliřkidir. Dięeri, Mantıksal Uzam kavramıdır. Sonucusuysa, mantıksal olasılıęın Tractatus tr kavramlařtırmasının tutarlı olup olmadıęıdır. Bu u sorunun tek bir makalede ele alınmasını gerektirecek kadar i ie geip gemedięi sorulabilir. Burada ben Mantıksal Uzam metaforunun mantıksal olasılıklar kavramına sıkıca baęlı olmasından tr cevabın olumlu olduęunu savunuyorum. Dolayısıyla, ikincisindeki tutarsızlık ve anlařılmazlıklar, ilkini ok problemlili hale getirecektir. Bu son dedięim doęruysa bu durum, aędař analitik zihin felsefesindeki tahayyl edilebilirlik temelli tezler iin etkileri byk olumsuz sonular doęurabilecektir. Tractatus'taki mantıksal uzam kavramı modal metafizięin erken dnemli bir eřidi olarak kendi bařına da olduka ilgintir. Fakat daha nemli olan, onun analitik zihin felsefesinde sıklıkla kullanılan yakın dnemli metafizik argmanlar iin barındırdıęı sonulardır.

Anahtar szckler: Wittgenstein, Mantıksal Uzam, Mantıksal Olasılıklar, Dnya, Gereklik, Olgu Baęlıamları, Zombiler

* Orta Doęu Teknik niversitesi Felsefe Blm ęretim elemanı

Introduction

Here is the synopsis of my argument:

- i. For the *Tractatus*, the only possibility is logical possibility, and it is equivalent to being conceivable (thinkable/picturable/imaginable/representable). There is a single kind of modality of possibility: logical possibility. Conceivable means possible. To put it differently, possible is what we can conceive. In modern analytical philosophy of mind, the notion of possibility is divided into three distinct sorts of modalities: logical, metaphysical, and nomological.¹ Conceivability implies some sorts of possibility. Metaphysical possibility is frequently regarded as fundamental, primary, mind-independent, and irreducible.
- ii. On the contrary, I argue that conceivability—let alone entails metaphysical possibility—cannot even be a guide to metaphysical possibility, whatever conceivability means.² Further, there is no logic of conceivability.

The first section of this paper attempts to crystallize the elusive relationships in the *Tractatus* among the notions of logical possibility, logical space, and imaginability, which still influence the underlying shape of some widespread (so-called) a priori arguments in the contemporary analytical metaphysics of mind, such as the zombie argument. In the *Tractatus*, Wittgenstein says that “the facts in logical space are the world.”³ He adds that “A picture presents a situation in logical space, the existence and non-existence of states of affairs.”⁴ There is a point (or place) for each state of affairs in Tractarian logical space.⁵ Nothing *conceivable* exists beyond it. All points might correspond to propositions. They may be true or false but are always meaningful. Meaningless propositions are outside of the logical space. For him in the *Tractatus*, mathematics is epistemologically on

¹ There is another classification in the modality debate: metaphysical, (personal or impersonal) epistemic, and semantic. Most of what I claim about logical, metaphysical, and nomological modalities can be applied to these as well. See the following excellent anthology for the very complex and not easily summarized relations between *conceivability* and *possibility*, containing articles from Chalmers, Stalnaker, Yablo, Sosa, Fine, et al.: Tamar Szabó Gendler and John Hawthorne, eds., *Conceivability and Possibility* (Oxford and New York: Oxford University Press, 2002).

² For a similar thesis, see for example, Moti Mizrahi and David R. Morrow, “Does Conceivability Entail Metaphysical Possibility?,” *Ratio* 28, no. 1 (March 2015): 1–13, doi:10.1111/rati.12047.

³ Ludwig Wittgenstein, *Tractatus Logico-Philosophicus*, trans. D. F. Pears and B. F. McGuinness (London and New York: Taylor & Francis e-Library, 2002), sec. 1.13.

⁴ *Ibid.*, sec. 2.11.

⁵ *Ibid.*, sec. 2.202.

a par with logic: "Mathematics is a logical method. The propositions of mathematics are equations, and therefore pseudo-propositions."⁶ Through this parallel between logic and mathematics, Wittgenstein uses the metaphor of a (geometrical) coordinate system. Evident from 3.032, logical space is an analog of this geometrical space. For Wittgenstein, in geometry, it is impossible to represent a figure that contradicts the laws of space. Also, for him, nothing can contradict logical laws:

It is as impossible to represent in language anything that 'contradicts logic' as it is in geometry to represent by its co-ordinates a figure that contradicts the laws of space, or to give the co-ordinates of a point that does not exist.⁷

In geometry and logic alike a place is a possibility: something can exist in it.⁸

This paper argues that by equating the laws of logic with the laws of geometry, Wittgenstein discloses something very important about the possible flaws of his assumptions about logical possibilities. This might have consequences for the plausibility of the zombie argument in the contemporary analytical philosophy of mind, if, as intend to show, they suffer from the same flaw, namely the implausible broadness of the notion of logical impossibility to the extent that it might include factual (i.e., nomological) impossibilities within its range. Though the modality issue forms one of the major parts of the book,⁹ its argument about the scope and consequences of *possibility* is somehow obscure.¹⁰ Nonetheless, the argument directly links to the conceivability (or imaginability) problem. The notions of *conceivability* and *logical possibility* are central to the zombie argument.

⁶ Ibid., sec. 6.02. See also sec. 6.22.

⁷ Ibid., sec. 3.032.

⁸ Ibid., sec. 3.0411.

⁹ See esp. Felipe Ledesma, "The Ontological Argument in the Tractatus," *Metaphysica. International Journal for Ontology and Metaphysics* 8 (2007): 180, doi:10.1007/s12133-007-0015-6.

¹⁰ Throughout this article, I largely follow Willard Van Orman Quine, "Main Trends in Recent Philosophy: Two Dogmas of Empiricism," *Philosophical Review* 60, no. 1 (1951): secs. I-III. But I apply his ideas to a different context, namely Tractarian logical space and the zombies argument.

Part I. Possibility, Conceivability, and the *Tractatus*

The following is a synopsis of the argument of Part I:

- i. Conceivability does not imply possibility. It implies only that someone is able to imagine the possibility of something. This is a psychological fact and has no philosophical significance.
- ii. Possibilities are intuition based. More importantly, intuitions are fallible, context-dependent, historically-shaped, subjective, arguably incoherent, somehow vague, possibly unanalyzable, defective, dubious, ill-founded, potentially biased, error-prone, and, in a word, *unreliable* tools to guide us toward the attainment of truth.
- iii. The *Tractatus* blurs the contemporary boundaries among the variety of modalities, evident from his examples ranging from mathematics and geometry to particle physics and visual psychology. The zombie argument stumbled blindly into the same folly through its engagement with modal talk, without making the modal talk better than the form presented in the *Tractatus*.

One of the central issues addressed in the *Tractatus* is the limit of logical possibility. If something is impossible to think, one cannot picture it. Then it is meaningless. Here is the first thing I should report about his notion of *possibility*:

294

Nothing in the province of logic can be merely possible. Logic deals with every possibility and all possibilities are its facts. (...) If I can imagine objects combined in states of affairs, I cannot imagine them excluded from the possibility of such combinations.¹¹

In the above passage, it is evident that for the *Tractatus*, if a state of affairs is imaginable, then it is possible. More accurately, if one can imagine a particular state of affairs, then it is (logically) possible. Here is the problem: The illustrations given in the *Tractatus* regarding (un)imaginability are precisely examples that some might call factual (or “material”) a priori,¹² though certainly not (strictly) analytic ones. These

¹¹ Wittgenstein, *Tractatus Logico-Philosophicus*, sec. 2.0121.

¹² See the following for a detailed discussion of Wittgenstein’s middle period regarding the changes in his understanding of the notion of “a priori” and “tautology”, Ray Monk, “The Temptations of Phenomenology: Wittgenstein, the Synthetic a Priori and the ‘Analytic a Posteriori,’” *International Journal of Philosophical Studies* 22, no. 3 (May 27, 2014): 312–40, doi:10.1080/09672559.2014.913884.

considerations suggest that Tractarian logical impossibility (through the limits of imaginability) depends on the so-called contingent truths in the sense that they are not tautological. These truths, if there were any, about space (more accurately, the laws of space) would be based upon our *current* knowledge of it. Here is, from the benefit of hindsight, a *surprisingly* mistaken example from the *Tractatus*: "... [A] particle (...) cannot be in two places at the same time; that is to say, particles that are in different places at the same time cannot be identical."¹³ Quantum mechanics made this so-called logical necessity simply mistaken.¹⁴ But the *Tractatus* says that "Hence there can never be *surprises* in logic," sec. 6.1251 (*italics added*). In fact, it is the main thesis of this paper that most of the alleged a priori arguments frequently used in recent analytical philosophy have the same status as the (mistaken) judgment that "a particle cannot be in more than one place at a time": the status of revisable truths (more accurately, *intuition*-based arguments or arguments agreeing with what *seems naturally right*).¹⁵ Historically, such judgments had been thought necessary, but according to today's consensus—excluding Kripkean modal philosophy's alleged conceptual innovations—if a judgment is factual, then it is contingent. In that case, the so-called arguments/judgments from logical possibility or conceivability are in fact contingent. Against this backdrop, since the *Tractatus* directly and explicitly equates the necessity of geometry with logical necessity, it becomes clear that its notion of logical possibility (practically) renders possibility as something contingent. If its line of reasoning is problematic, as I argue in this paper, then¹⁶ those arguments in the philosophy of mind should be reconsidered as well. The distinguishing mark of a priori arguments¹⁷ in the analytical philosophy of mind is that

¹³ Wittgenstein, *Tractatus Logico-Philosophicus*, sec. 6.3751.

¹⁴ For many and varied historical examples of these surprises, see esp. Tamar Szabó Gendler and John Hawthorne, "Introduction: Conceivability and Possibility," in *Conceivability and Possibility*, ed. Tamar Szabó Gendler and John Hawthorne, 2002, 9–10.

¹⁵ See this wonderful article for a brilliant criticism of the intuition-based arguments in the philosophy of mind, Thomas Nagel, "Conceiving the Impossible and the Mind-Body Problem," *Philosophy* 73, no. 285 (July 1998): 337–52, doi:10.1017/S0031819198000035.

¹⁶ Especially the counter-arguments, such as the zombie argument, against physicalism or reductionism. There are two creatures. Both of them *totally* indiscernible, but one of them is without consciousness (or lack of feeling qualia) and the other is with consciousness.

¹⁷ See the following for a discussion of a priori arguments in philosophy and their epistemological status, Fatih Öztürk, "Williamson, Karşıolgusal Epistemoloji ve

they are *pronounced* to be based upon the considerations regarding something's conceivability. It has been said that if it is conceivable, then it must be logically possible. If one believes that the determination of what is logically possible (or, conceivable/imaginable) is mind-independent, universal, predetermined and fully objective, then my aim here would be rather meaningless. Many people in the recent analytical philosophy of mind would think so. However, in the case that determination of what is logically possible (or conceivable, or inconceivable, or imaginable) is to a certain extent subjective, then my aim is meaningful. First I shall explain what I mean, and then I shall try to show that the notion of logical possibility is not clear or hard and fast.

Many philosophers think that for Wittgenstein, the only type of necessity and possibility is logical. This is exactly what Wittgenstein himself said. However, since the *Tractatus* has an overly broad notion of possibility, its notion of possibility in fact embraces what we today regard as metaphysical (even, nomological) possibility. The reason is the following: In the *Tractatus*, Wittgenstein sees the certainty level of geometry and logic as the same.¹⁸ If that were really the case, geometry would have been open to being reduced to formal logic. But it is widely accepted that that project failed in the first half of the last century.¹⁹ This should suggest that an analogy between logic and geometry is of doubtful use. What is the significance of this point? First, in the *Tractatus*, Reality corresponds to the whole of logical space. Logical space is "... the idea of images or pictures representative of reality organized into a logico-mathematical structure circumscribing a form of all possible worlds."²⁰ What is thinkable, for the *Tractatus*, is possible.²¹ We can make the pictures of what is possible to ourselves: "A picture is a fact."²² Facts are logical possibilities.²³ Each picture

Düşünce Deneyleri," in *Günümüzü Felsefe ile Düşünmek*, ed. Bahadır Gülşen et al. (İzmir: Ege Üniversitesi Yayınları, 2014), 141–50.

¹⁸ Wittgenstein, *Tractatus Logico-Philosophicus*, sec. 3.032.

¹⁹ Willard Van Orman Quine, "Epistemology Naturalized," in *Quintessence: Basic Readings from the Philosophy of W. V. Quine*, ed. Roger F Gibson (Cambridge, Mass.: MIT Press. A Bradford Book, 2004), 259. The so-called construction of the foundations of mathematics out of an axiomatic set theory is a different issue. Set theory is a part of mathematics, though it was once subsumed under logic, see Willard Van Orman Quine, *Mathematical Logic*, Revised (Cambridge, MA and London, England: Harvard University Press, 1981), iii.

²⁰ Lucien R. Lamoureux, "From Mirror to Mirage: The Idea of Logical Space in Kant, Wittgenstein, and van Fraassen" (The University of Western Ontario, 2012), <http://ir.lib.uwo.ca/cgi/viewcontent.cgi?article=1967&context=etd>.

²¹ Wittgenstein, *Tractatus Logico-Philosophicus*, sec. 3.02.

²² *Ibid.*, sec. 2.141.

is a logical possibility: "Every picture is at the same time a logical one."²⁴ Or to put it differently, "A picture represents a possible situation in logical space."²⁵ In turn, what is *possible* is *picturable*. Through this chain, the concept of the *picturable* is based upon the concept of the *thinkable*: "A state of affairs is thinkable': what this means is that we can picture it to ourselves."²⁶ In parallel, imaginability is directly linked to logical possibility: "If I *can imagine* objects combined in states of affairs, I *cannot imagine* them *excluded* from the *possibility* of such combinations."²⁷ Then we have two sets of interdefined notions: picturable/thinkable and imaginable/possible. Since only the logical is possible, whatever is imaginable is logical. If something is logical, according to the *Tractatus*, we can make a picture of it to ourselves. It is picturable. Thus, if I can imagine the existence of the zombies, then it is logically possible. Otherwise, I should have thought illogically:

What is *thinkable* is *possible* too. Thought can never be of anything illogical, since, if it were, we should have to think illogically. It used to be said that God could create anything except what would be contrary to the laws of logic.²⁸ (italics added)

At this moment, we should consider whether the Tractarian notion of a logical possibility has the same status as the recent arguments we found in the philosophy of mind. To put it plainly, today we normally do not say that the laws of geometry/space are *logically* necessary. On the contrary, the *Tractatus* states that it is so (as quoted above). Two centuries ago, the answer to the question of whether the epistemological status of the so-called laws of geometry were necessary or contingent had been an unqualified affirmative. However, the present consensus is quite the reverse. The so-called laws of space are not considered to be logically necessary any longer. These laws is like the contingency of physical laws or slightly better. For contemporary physics, space, and time are not the preconditions of anything. They do not provide, with a special status compared to physical laws, the basis on which the physical laws hold. But the *Tractatus* strictly distinguishes the laws of geometry from the laws of physics: "Though a state of affairs that would contravene the laws of physics

²³ Ibid., sec. 2.0121.

²⁴ Ibid., sec. 2.182.

²⁵ Ibid., sec. 2.202.

²⁶ Ibid., sec. 3.001.

²⁷ Ibid., sec. 2.0121. (Italics added).

²⁸ Ibid., sec. 3.02 & 3.03 & 3.031.

can be represented by us spatially, one that would contravene the laws of geometry cannot.”²⁹ This problematic status given to the geometrical laws discloses how Tractarian logical possibility assumes something quite *contingent*. By contingent, I simply mean that the truth or judgment is factual/material and open to revision in light of experience. That is, they are not analytical *proper*, i.e., tautological or irreducible to an obvious tautology. In this *specific* sense, the limits of possibility or picturability in the book is simply grounded on what we *currently* know or presumptively *accepted* and has nothing to do with logical possibility *proper*. If that is the case, then how do I know that the a priori arguments in recent analytical philosophy are *sound* or not? These arguments are not strictly analytical on the level of the proposition “P or not P.” They do not analyze the concepts, but they express our unreliable intuitions. Having laid this foundation, let me move to a concrete example of the problem.

Part II. Modality and Zombies

The following is a synopsis of the argument of Part II:

- i. The zombie argument is entirely based upon modal justification, which is highly problematic.
- ii. Though modal talk today asserts that there are distinct notions of logical, metaphysical, and nomological possibility, it *practically* agrees with the Tractarian notion of possibility: only possibility is logical possibility, and it is equal to conceivability.
- iii. It is much easier to show that the equation between conceivability and possibility is quite misleading in the context of the *Tractatus*, because there is a sufficient number of concrete examples (which turn out to be mistaken) in it, whereas recent formulations of the problem exemplified in the zombie argument are not sufficiently illustrated by concrete examples.

There is a highly-known thought experiment in the philosophy of mind. It is known as the “zombie argument.”³⁰ In that argument, we are asked to imagine two creatures that are completely identical (i.e., totally indiscernible), but one has no consciousness and the other does. The argument states that due to the conceivability of such a case, the zombies are metaphysically possible: “At least initially, zombies of this strong sort

²⁹ Ibid., sec. 3.0321.

³⁰ Also known as “The philosophical zombies argument.”

seem metaphysically possible. Thus, we have the pre-theoretic intuition that bodies physically identical to ours could lack consciousness. Kripke (1980), Bealer (1994), and Chalmers (1994) draw the moral that physicalism is false.”³¹ Philosophers who accept the logical possibility of the zombies are divided into a few distinct classes. One group claims that such zombies are conceivable and also metaphysically possible. A greater portion believe that it is conceivable but metaphysically impossible. The smallest minority, including myself, believe that it is even not conceivable (i.e., I cannot *positively* conceive its existence). At this moment, I should direct attention to the greater picture that the zombie conceivability argument and the Tractarian notion of logical space are connected to each other:

Few people think zombies actually exist. But many hold they are at least conceivable, and some that they are possible. (...) *Use of the zombie idea against physicalism also raises more general questions about relations between imaginability, conceivability, and possibility.*³² (italics added)

In the above passage, one sees that unlike in Wittgenstein’s *Tractatus*, for the modern analytical philosophy of mind, imaginability, conceivability, and possibility are not identical or obvious. I think these notions strongly resist clear and consistent articulation. Arguably, conceivability (or imaginability) is the broadest or the most expansive notion in the sense that it is the most inclusive. Logical possibility presumably is just a substitute for the notion of conceivability—though I believe it is respectable (and someday will be philosophically fashionable) to dissociate these two notions. Then comes metaphysical possibility, and it is followed by nomological possibility. For the *Tractatus*, all these notions are essentially the same. If something is necessary or possible, then it is logically necessary or possible.

In Wittgenstein’s Reality, a round-square cannot meaningfully exist since it contradicts the laws of geometry. On the contrary, it is natural to assume that a zombie exists without contradicting logical laws. For a moment, assume that you believe that a zombie is *inconceivable*. Then what would you say about the plausibility of the zombie argument? Most probably you would say that it is implausible. If the *Tractatus* allows us to assign meaning to each possible proposition, and every inch of the (logical)

³¹ David Barnett, “The Simplicity Intuition and Its Hidden Influence on Philosophy of Mind,” *Noûs* 42, no. 2 (2008): 309.

³² Robert Kirk, “Zombies,” ed. Edward N. Zalta, *The Stanford Encyclopedia of Philosophy*, 2015, <http://plato.stanford.edu/archives/sum2015/entries/zombies/>.

possibility is objective and mind-independent, then the zombie argument may at least be initially plausible. On the contrary, for the people who believe that the notion of possibility is not something totally clear, the limits of meaningful propositions are not completely determined. How is it possible to demonstrate that even *logical* possibility is not fully objective?

First of all, it is necessary to express that the subsequent line of reasoning is not decisive but does carry a sufficient amount of supporting evidence. My argument is the following: If it were true that the logically possible (or conceivable) is wholly universal, irreducible, primary, and objective, then we should have encountered the following situation. (Almost) all philosophy professors—who are supposed to know the first-grade level logic very well and currently have a healthy and fully functioning mind—would be of the same opinion when they were presented with a concrete question such as the *logical* possibility of zombies. However, is this the case? Here is an experimental philosophical study, which was published by Chalmers and Bourget in 2014.³³ Regarding thirty major philosophical views, several hundreds of philosophers were surveyed. Here are the results:

300

Zombies: inconceivable, conceivable but not metaphysically possible, or metaphysically possible?

Conceivable but not metaphysically possible: 35.6 ± 1.2 % Lean toward (20.5 %), Accept (15.0 %)

Metaphysically possible: 23.3 ± 1.0 % Accept (12.4 %), Lean toward (11.0 %)

Inconceivable: 16.0 ± 0.8 % Lean toward (8.8 %), Accept (7.2 %).³⁴

Just 59% of the participants accepts that “zombies are metaphysically possible.” The other half of the participants did not affirm the proposition. What insights should be drawn from this result regarding the problem of possibility and imaginability? Clearly, these results suggests different meanings to different frameworks. For an experimental, pragmatist, or naturalist philosopher, the results might suggest either that logic as a tool cannot be unanimously utilized regarding *philosophical* problems about the *mind* or that logic should not be utilized in *these* kinds of problems. For me,

³³ David Bourget and David Chalmers, “What Do Philosopher’s Believe?,” *Philosophical Studies* 170, no. 3 (2014): 477, doi:10.1007/s11098-013-0259-7.

³⁴ Bourget and Chalmers, “What Do Philosopher’s Believe?”

it shows that intuition cannot be separated from the logical formalization of philosophical problems. Because intuition is not reliable and probably not universal (and worse, highly misleading), it is *not* a good strategy to appeal to logic for analyzing the structure of the Reality or World. It might appear that I have tried to *defend* that “the zombies are not even conceivable.” I have made no such attempt. Neither do I say that the zombies argument is an instance of modal illusion. (I just claim that the coherency, soundness, and utility of modal talk is itself a philosophical illusion.) Instead, I have tried to call attention to the importance of having a deeper understanding of the elusive relations between imaginability and possibility.³⁵ To put it plainly, if logic determines the boundaries of what is meaningful and what is meaningless, and if it is true that what is logically contradictory is undetermined, then how can we determine the boundaries of logical space? For the *Tractatus*, Logical space is the ensemble of logical possibilities. Therefore, the content of logical space depends on the notion of logical possibility, to which “the text is of little help.”³⁶ The following is said to explain the notion of logical possibility: “The idea in 3.02 can roughly be expressed thus: the logical 'possibility' of things being thus or thus consists in nothing but our being able to imagine (picture) their being thus and thus.”³⁷ Now, the relation becomes a little bit clearer. Imaginability is the *sole* criterion of logical possibility, and the study I have summarized above shows that imaginability is subjective to some extent (note that it might be idiosyncratic or intersubjective). I do not claim that non-imaginability-based conditions for the notion of logical possibility cannot be given, only that neither the *Tractatus* nor modern defenders of the zombie argument have given them. As a result, it remains unclear what they might be. A simple equation between logical possibility and imaginability has no philosophical utility. As I have tried to show through several passages taken from the *Tractatus* in the first part of the paper, in Wittgenstein’s *Tractatus*, there is an unjustified equation between possibility and thinkability/imaginability/picturability.³⁸ Just consider the color exclusion problem (the surface is red versus the surface is green). Can you think of a

³⁵ Many thanks to the anonymous reviewer of this article for assistance on this point.

³⁶ Max Black, *A Companion to Wittgenstein’s “Tractatus”* (Cambridge: Cambridge University Press, 1971).

³⁷ Erik Stenius, *Wittgenstein’s Tractatus: A Critical Exposition of Its Main Lines of Thought* (Ithaca and New York: Cornell University Press, 1960), 10.

³⁸ María Cerezo, “Possibility and Logical Space in the Tractatus,” *International Journal of Philosophical Studies* 20, no. 5 (December 29, 2012): 645–59, doi:10.1080/09672559.2012.714303.

red-green surface? If you define the colors as logically exclusive, the answer is tautologically negative. Do we define color distribution in that way? Of course not. We have a list of the wavelengths of colors, but the human perception of colors cannot be automatically and smoothly reduced to that list. In fact, our perception does not match with it. It suggests that the categorization of colors is language and culture-dependent. The easiest way to comprehend the issue is to consider the very well-known fact that rainbows, in fact, have a continuous spectrum of the wavelength of electromagnetic radiation. Yet people perceive it as having a set of distinct colors. More importantly, it is probable that some extremely isolated forest tribes would perceive it as of just two distinct colors, namely green and brown. We know that cultures have varying numbers of color names. The color space is accordingly divided into distinct numbers of categories. In that different categorization of color space, it is perfectly possible that there could be a red-green surface (but not *both red and not-red*)—one can simply imagine it.

It might be said that “Colors cannot be objective because they are secondary qualities; therefore, they are scientifically subjective.” With this I agree, but that is exactly the opposite of what Wittgenstein had said about the color exclusion problem, both in the *Tractatus* (as quoted above) and in the publications from his middle period (during the 1920s and 30s). Surely, no one *should* assert that they are objective qualities. But Wittgenstein assumes them to be so. Both mathematics as a method of logic and some particular physical facts such as general mechanical laws and laws of color distribution, for him, have logical underlying forms. But the answer to the imaginability of the zombies is, as I have shown above, not monolithic at all. Almost half of the participants said that “zombies are not metaphysically possible or the question is unclear or the answer is not decided.” Probably the answers depended on the background beliefs and practical assumptions of the responding scholars. Therefore, imaginability is quite subjective, and because the logical possibility is equivalent to imaginability (in the *Tractatus*), the latter is also subjective. The general problem of the arguments from imaginability might be put in the following way:

Since what can or cannot be imagined about the empirical world is not independent of what is already understood and believed about the empirical world, failures of imaginability

were all too often owed to ignorance or to inflexible imaginations.³⁹

In the passage above, Churchland talks about the empirical world. It might be said that logical possibilities are of different modal statuses. But how? The problem is not given to us in the form of “Every A that is B is an A.” We are not discussing a logical truth. The problem comes not in a purely logical form but comes in an interpreted way (i.e., not “A” as a formal symbol, but “the creature with consciousness”).

In his correspondence with Frege—from June 1919 to April 1920—we see that Frege himself had difficulties with agreeing or disagreeing with Wittgenstein because the manuscript of the *Tractatus* (belonging to late 1918) was using the centrally important terms ambiguously.⁴⁰ It was so, to the extent that Allan Janik states, “Frege’s letters about the ‘Tractatus’ convey (...) also the two thinkers’ utterly distinct conceptions of clarity.”⁴¹ This observation is striking since the distinguishing mark of analytical philosophy is the goal of *clarity*, and Wittgenstein has been regarded as one of the founders of the field. Moreover, since even Bertrand Russell’s introduction to the book was claimed, by Wittgenstein, to be mistaken, my reconstruction of some of its arguments might be regarded as simply false. For those people who agree with my exposition of the notion, the challenge posed by my considerations of the Tractarian notion of possibility would be to non-circularly and usefully define the scope and limits of the logical possibilities, which is necessary to know the boundaries of the logical space. Does the so-called zombie find a point within the logical space? Now it becomes clear, I think, that the boundaries of the logical space are drawn by the imaginative capacities or the knowledge level of particular philosophers. Then, one’s metaphysical or even nomological possibility is another’s *mere* logical possibility. This modal talk obscures the arguments for and against physicalism rather than illuminates them.

³⁹ Patricia Smith Churchland, *Neurophilosophy: Toward a Unified Science of the Mind-Brain* (Cambridge, Mass: MIT Press, 1986), 3.

⁴⁰ Burton Dreben and Juliet Floyd, “Frege-Wittgenstein Correspondence,” in *Interactive Wittgenstein. Essays in Memory of Georg Henrik von Wright*, ed. Enzo De Pellegrin (Dordrecht: Springer Netherlands, 2011), 15–73, doi:10.1007/978-1-4020-9909-0_2.

⁴¹ Quoted in Juliet Floyd, “The Frege-Wittgenstein Correspondence: Interpretive Themes,” in *Interactive Wittgenstein. Essays in Memory of Georg Henrik von Wright*, ed. Enzo De Pellegrin (Dordrecht: Springer Netherlands, 2011), 3.

Conclusion

In this paper, I have argued that the metaphor of logical space and its underlying notion of logical possibilities are quite subjective in its applications because it is largely based upon our intuitions. Moreover, since the limit of conceivability is dependent upon these possibilities, and the possibilities are subjective, the limit of conceivability remains (logically) undetermined, but actually determined in virtue of the subjective imagination of particular philosophers. It implies that although the *Tractatus* claims to provide a solid ground for philosophical activity by utilizing the tools of logic in order to solve (or “dissolve”) ill-formed philosophical problems, the book fell short of accomplishing its goal, since its logical analysis is itself based upon ill-formed modal notions. Had *establishing*—not merely *exploring how*—that modal talk is considerably murky been my objective, a much more exhaustive review of the approaches related to the notions of conceivability and possibility should have been conducted, which would take up too many pages. It is not possible in this paper to make the full case for that, due to the limits of space. The crucial point for the purposes of my paper is that there is no philosophical benefit of utilizing modality-based arguments in the contemporary analytical philosophy of mind because modal notion themselves are ill-founded.

REFERENCES

- Barnett, David. "The Simplicity Intuition and Its Hidden Influence on Philosophy of Mind." *Noûs* 42, no. 2 (2008): 308–35.
- Black, Max. *A Companion to Wittgenstein's "Tractatus."* Cambridge: Cambridge University Press, 1971.
- Bourget, David, and David Chalmers. "What Do Philosophers Believe?" *Philosophical Studies* 170, no. 3 (2014): 465–500. doi:10.1007/s11098-013-0259-7.
- Cerezo, María. "Possibility and Logical Space in the Tractatus." *International Journal of Philosophical Studies* 20, no. 5 (December 29, 2012): 645–59. doi:10.1080/09672559.2012.714303.
- Churchland, Patricia Smith. *Neurophilosophy: Toward a Unified Science of the Mind-Brain.* Cambridge, Mass: MIT Press, 1986.
- Dreben, Burton, and Juliet Floyd. "Frege-Wittgenstein Correspondence." In *Interactive Wittgenstein. Essays in Memory of Georg Henrik von Wright*, edited by Enzo De Pellegrin, 15–73. Dordrecht: Springer Netherlands, 2011. doi:10.1007/978-1-4020-9909-0_2.
- Floyd, Juliet. "The Frege-Wittgenstein Correspondence: Interpretive Themes." In *Interactive Wittgenstein. Essays in Memory of Georg Henrik von Wright*, edited by Enzo De Pellegrin, 75–107. Dordrecht: Springer Netherlands, 2011.
- Gendler, Tamar Szabó, and John Hawthorne, eds. *Conceivability and Possibility.* Oxford and New York: Oxford University Press, 2002.
- . "Introduction: Conceivability and Possibility." In *Conceivability and Possibility*, edited by Tamar Szabó Gendler and John Hawthorne, 1–70, 2002.
- Kirk, Robert. "Zombies." Edited by Edward N. Zalta. *The Stanford Encyclopedia of Philosophy*, 2015. <http://plato.stanford.edu/archives/sum2015/entries/zombies/>.
- Lamoureux, Lucien R. "From Mirror to Mirage: The Idea of Logical Space in Kant, Wittgenstein, and van Fraassen." The University of Western Ontario, 2012. <http://ir.lib.uwo.ca/cgi/viewcontent.cgi?article=1967&context=etd>.
- Ledesma, Felipe. "The Ontological Argument in the Tractatus." *Metaphysica. International Journal for Ontology and Metaphysics* 8 (2007): 179–201. doi:10.1007/sl 2133-007-0015-6.
- Mizrahi, Moti, and David R. Morrow. "Does Conceivability Entail Metaphysical Possibility?" *Ratio* 28, no. 1 (March 2015): 1–13.

doi:10.1111/rati.12047.

- Monk, Ray. "The Temptations of Phenomenology: Wittgenstein, the Synthetic a Priori and the 'Analytic a Posteriori.'" *International Journal of Philosophical Studies* 22, no. 3 (May 27, 2014): 312–40. doi:10.1080/09672559.2014.913884.
- Nagel, Thomas. "Conceiving the Impossible and the Mind-Body Problem." *Philosophy* 73, no. 285 (July 1998): 337–52. doi:10.1017/S0031819198000035.
- Öztürk, Fatih. "Williamson, Karşılgusal Epistemoloji ve Düşünce Deneyleri." In *Günümüzü Felsefe Ile Düşünmek*, edited by Bahadır Gülşen, Erkan Bozkurt, Gülce Sorguç, and Umut Morkoç, 141–50. İzmir: Ege Üniversitesi Yayınları, 2014.
- Quine, Willard Van Orman. "Epistemology Naturalized." In *Quintessence: Basic Readings from the Philosophy of W. V. Quine*, edited by Roger F Gibson, 259–74. Cambridge, Mass.: MIT Press. A Bradford Book, 2004.
- . "Main Trends in Recent Philosophy: Two Dogmas of Empiricism." *Philosophical Review* 60, no. 1 (1951): 20–43.
- . *Mathematical Logic*. Revised. Cambridge, MA and London, England: Harvard University Press, 1981.
- Stenius, Erik. *Wittgenstein's Tractatus: A Critical Exposition of Its Main Lines of Thought*. Ithaca and New York: Cornell University Press, 1960.
- Wittgenstein, Ludwig. *Tractatus Logico-Philosophicus*. Translated by D. F. Pears and B. F. McGuinness. London and New York: Taylor & Francis e-Library, 2002.