

# The Formal Identity of Name and Object and Its Role in the Concept of Grammar

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## **Abstract**

In this paper, I will be arguing that the basic infrastructure of an ineffable formal identity between name and object which is presented in the *Tractatus* is still very much involved in Wittgenstein's early development of the concept of grammar. First, it will be necessary to clearly describe how the identity between name and object is initially formulated in the *Tractatus*. Hence, in section 1, I will show how the "picture theory" is ontologically grounded on the identity of language's and world's atomic structural elements. I will discuss the "picture theory" only briefly, since my main interest is to illuminate how that infrastructure remains a core aspect of Wittgenstein's "middle period" thinking: that is, in what way the identity of name and object is contained and presupposed within his concept of grammar and how it is still used as a condition for our symbolism to make sense. Another way to describe this paper's aim, this time from its end backwards, would be to say that it is to reveal that grammatical systems of rules are nothing other than the implementations of that special kind of identity, for the latter is always and already manifest within our symbolism.

## **1. The formal identity between name and object in TLP**

This paper will argue that the basic infrastructure of an ineffable formal identity between name and object presented in the *Tractatus*, is still very much involved in Wittgenstein's early development of the concept of grammar.<sup>1</sup>

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<sup>1</sup> It may help to point to further discussions on the topics that will be addressed in what follows. For discussions on Wittgenstein's 'picture theory' and the concept of an object; see Sluga 2012, Mabaquiao 2021, Soames 2016, Engelmann 2021 (ch. 2–3), Zalabardo 2015 (ch. 2.3–2.11, 4.5–4.6), and Mácha 2015 (ch. 6–10). For Wittgenstein's development of his understanding of colors see Westphal 2017, for a closer reading on his conception up until the 30s of color see Stern 2018, and Lugg 2015. Wittgenstein's concept of Grammar is detailed in Forster 2017 and Sluga 2010.

Two preliminary and long-lasting insights that go hand-in-hand with the idea of the identity will bolster the argument. The insights are (A) that “logic must take care of itself” (NB, 2 and TLP 5.473) and (B) that “all of the propositions of our everyday language, just as they stand, are in a perfect logical order” (TLP 5.5563). Insights A and B are the outcomes of the abolition of logic as a scientific body of propositions that can warranty what counts as a proposition. Equally, they abolish logic’s mandate to decide whether the world we live in is actually like this or that (NB, 128). Thanks to those insights, the identity of the name and object can function as a theoretical basis for the “picture theory” *even though that identity was never fully analyzed into its constituents*. Developing and keeping contact with those insights, we will see that although language is not articulated systematically, it can still represent reality clearly and objectively by means of its own resources. And that everyday language must be, and indeed already is, a system of propositions that has sense. Furthermore, one must bear in mind that to unchain logic from the scientific grip (as insight A suggests) is not to set language free from its relation to reality. That is, accepting insight A does not summon nor demand the acceptance that all of our utterances are in fact in “a perfect logical order”, make sense, and have truth values (as the overarching tone of insight B may be taken to suggest).

Finally, I can say I have achieved my aim if mysterious remarks such as: “Like everything metaphysical, the harmony between thought and reality is to be found in the grammar of the language” (PG, 162); “What belongs to grammar are all the conditions (the method) necessary for comparing the proposition with reality [...] For the understanding (of the sense)” (PG, 88); turn out to be elucidatory for my thesis. For a start, drawing on insights A and B, let us address these three questions with respect to the *Tractatus*: 1) What is the *form* of an object? 2) What is the meaning of “logical space”? And finally, 3) What is a *formal identity* between a name and an object?

Regarding 1), in the *Tractatus*, Wittgenstein establishes a change in the meaning of “logical form”. According to the predominant views prevailing the field, especially those of Russell and Frege, the logical form of propositions was understood to provide the ultimate structure that conditions all other possible propositions. In the *Tractatus*, logical form is first and foremost described as an inner property of objects: that is, objects *are* those that have a specific form. “This fixed form consists of the objects” (2.023). In

this sense, “logical form” is no longer the term for an ultimately *linguistic* structure. Rather, it is a term that indicates the possible (in the sense of potential) occurrence of every worldly (and linguistic, as we will soon see) structure that there may be. The difference is tremendous. When Wittgenstein writes in 2.033 that “[t]he form is the possibility of the structure,” he wants to emphasize that the form of an object is, as Eli Friedlander puts it, a “manifestation of whole space of possibilities, [and] thus the condition of all possible structures” (2001: 166). The form is what conditions every structure but is not a structure in itself. Rather, it is what (so to speak) captures all possible and actual ways for something to be at all.

The objects, by the same token, must be seen as the only substances of reality; for they alone have a constitutive role in establishing *any* worldly structures (facts and state of affairs). “The object is the fixed, the existent; the configuration is changing, the variable” (TLP, 2.0271). What we should understand from this is that the logical form of an object is what, on the one hand, grants the object independence from other objects’ forms, and yet, on the other hand, condemns it to a dependent coexistence with other objects when gathered with them into a structure. Or more clearly, form is what enables some objects to configure themselves into a state of affairs within which they figure in relation to one another. Additionally, it is what characterizes each and every object’s independence: its “option” (so to speak) *not* to occur within a specific state of affairs. Hence, an object can be configured with others to create an existing state of affairs. It can also not do that and hence keep the state of affairs as a mere possibility; or -- and this is also due to its form -- it may not have the formal character to configure with some kinds of other objects, thereby delimiting what are the *impossible* states of affairs.

Ad 2), and following 1), we can say that because objects have a logical form, all of the possible structural ranges of objective configuration have some sort of limitations imposed by that form. For Wittgenstein, logical space is not merely the platform wherein every possible structure becomes actual, but also the perimeter that functions as a limit to every structure that can possibly exist. For if simplicity is the sole condition for sense, then “[t]he demand for simple things is the demand for definiteness of sense” (NB, 63/TLP 3.23), this demand also means that the simple functions as a limit for possible sense. Therefore, the simple object “is to lie at the boundary where

my language goes inarticulate” (Sullivan 2003: 81)<sup>2</sup>; it is only inside the perimeter where objects exist that sense can emerge. Still, the crucial point to add here is that there is no separation between the totality of all objects and the totality of logical space itself. The totality of all the objects (of their ability to configure with others) *are* the space’s boundaries as well. The coherence of the logical space is exactly that of a cohesive unit that captures the mutual relations between objects, so that the objects are *not* located or situated *in* the logical space, but the space itself *is* the totality of all possible objectual combinations. The object’s form is the essence of reality, and also what makes logical space a delimiting space such that beyond it there is only nonsense. How are names incorporated into this ontological picture?

Regarding 3), as we noticed above, Wittgenstein thought that logic must not have the privilege of supervising a procedure of setting up the

so-called primitive propositions; so-called rules of deduction; and then say[ing] that what you get by applying the rules to the propositions is a *logical* proposition that you have *proved*. (NB, 108)

That is to say: Logic cannot stand as a sense-giving constitution for any linguistic system; nor can logic justify its relations to the world, or state the order of the appearances of things. What is consistently happening is that we wrongly apply arbitrary logical conventions to a linguistic expression by categorizing a propositional part as possessing the property of being in some special relationship with an object, and then call this part a “proper name”. But by doing so we estrange ourselves from Wittgenstein’s task of explaining the nature of the propositions as what gives the nature of all beings (see NB, 39).<sup>3</sup>

By contrast, for Wittgenstein, as early as the *Notebooks*, a truly simple name can “designate” an object only because both are embedded within the same logical nexus and share the same form:

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<sup>2</sup> Sullivan also adds: “What added [to TLP from NB] is that discounted possibilities are consigned to the background, as not figuring in this space” (2003:82).

<sup>3</sup> Additionally, we should be aware that this logic is not what constitutes the core of the “picture theory” in the TLP. We should avoid the confusion between a residual form of this “old logic” and the name-object logical identity of the first sections of TLP: “In the first part [of TLP], notably in the 3’s and early 4’s, we seem to be told that the essence of a proposition is to be a picture, while in the later parts we are told that its essence is to be a truth-function, that is to say a result of applying the operation of simultaneous negation to elementary propositions” (McGuinness 2001: 65–66).

A name designating an object thereby stands in a relation to it which is wholly determined by the logical kind of the object and which signals that logical kind. [T]he object must be of a particular logical kind. (NB, 70)<sup>4</sup>

“Designation” [Bezeichnung] is for Wittgenstein the ability of the logical name to “act like” (and not “stand for”) an object thanks to their possession of a common form. And this is possible because logical identity is a necessary ontological condition; for it prevails on both the linguistic elements and those of reality and dictates the activity of both though their forms. Recognizing the formal identity of name and object, we must refuse to compare linguistic elements with worldly ones as if they are not on par, or as if it were a relationship between two things that are for some reason equivalent. Rather, the formal identity is the identity of the same thing(s) because “they” share the same form.<sup>5</sup>

If so, logical space is also what enables the successes of the “projection method” in which configurations of the simple names are the result of the translation rule of a possible projected state of affairs; or as Moser puts it

Thought has an object only when the proposition is projected onto reality as a model of it, in that sense a picture of it is made. [...] The projection method is a relation that manifests itself only in action, which, in respect to later Wittgenstein, we could call a hinge between the sensibly perceptible propositional sign and that which is thought or pictured in it. (2021:74, 89–90)

The translation rule applied to the linguistic structure through the act of projection not in an arbitrary way but rather according to the arrangement that objects can perform in logical space. That is, this translation between what is possible in reality and what is possible for expression in language is thanks to the identity.<sup>6</sup>

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<sup>4</sup> See also: “In logic it is not *we* who express, by means of signs, what we want, with the help of signs, but in logic the nature of the essentially necessary signs itself asserts” (TLP, 6.124).

<sup>5</sup> See 5.53–5.5352, where Wittgenstein talks about the redundancy of the identity sign: “to say of *two* things that they are identical is nonsense, and to say of *one* thing that it is identical with itself is to say nothing” (TLP, 5.5303). Based on that perspective, I put the word “they” in quotation marks since object and name are not two different things. I will elaborate more this point at the end of this chapter.

<sup>6</sup> Logical and mathematical propositions present a “zero method” of projection since they do not project onto any determinate possibility, i.e., any state of affairs within logical space, but are rather “brought into equilibrium with one another” (6.121. see also 6.22) by presenting only the scaffolding of the space. It doesn’t mean, as Moser claims, that “philosophical propositions are both equations and tautologies and always true” (Moser 2021: 66). Also Kuusela, although sympathetic with Wittgenstein’s

Before we move on to examine Wittgenstein's position in his middle period an important remark must be made. Wittgenstein (almost completely) stops using the terms "object" and "name" with their Tractarian meanings after finishing the book. That, along with other obstacles (described next), makes my thesis hard to accept. Yet, this should, I trust, be seen as proof of the seriousness of his proclamation in remark 6.54 about "kicking away the ladder". By being able to take this remark at face value and to withdraw altogether from the Tractarian terminology (as he asked those who understood him to do) *and yet, simultaneously, while standing on a firm ground, preserve the core insight that had been phrased with the help of those concepts*. To say that "Names are identical to objects" is nonsensical, yet not exactly nothing. It is nonsense, not because they are two (separate) things, but because this pseudo-proposition is what makes possible all other propositions, and in that sense, it is not part of the system of language and hence must pass in silence. It is not exactly nothing, for although it asserts a superfluous identity (of one thing with itself) it still has an auxiliary role that we should surmount as we gain a perspicuous view on our language. As I will argue in more than one way, the ontological implication built upon those formal concepts has to be at the back of Wittgenstein's mind from the middle period onwards.

## ***2. An attempt to prescribe the logical space of color while neglecting the formal identity between name and object***

In the next two sections, I put the formal identity of name and object to the test. In other words, I want to find out how Wittgenstein came to realize and understand the role of logical identity between name and object as what determines the ability of our propositions to make (or fail to make) sense.

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testimony in the preface to the *Philosophical Investigations* that "[my] latter [work] could be seen in the right light only by contrast with and against the background of my old way of thinking," still has not spotted the seed of what will be the background of his later work incarnated within the 'picture theory' and thus wrongly concludes that: "[M]y suggestion is that the Tractatus' notation for the truth-functional analysis of propositions and the (misleadingly so baptized) 'picture theory of propositions' are put forward as components of a concept-script, i.e. a scheme for a logical analysis of propositions" (2011:598, 603). Contrary to both, in the act of picturing one always projects some substantial possibility of reality (this is why it isn't tautology or contradiction) and at the same time one cannot guarantee this possibility to be necessarily true (this is why it isn't an a-priori picture). The remark that states both clarifications is: "To the proposition belongs everything which belongs to the projection; but not what is projected. Therefore, the possibility of what projected [the form of the object] but not this itself [the object]" (TLP, 3.13).

Turning to “Some Remarks on Logical Form”, (SRLF hereafter) I discuss how Wittgenstein tried in that lecture to settle the “color problem” and why his attempt failed. Nevertheless, my claim is that his attempt was not “worthless,” as he later remarked to Anscombe (Engelmann 2017: 99),<sup>7</sup> because passing through this failure, he gradually changed his position: from entertaining the hope of giving an exact articulation, or ultimate analysis of a logically formal structure, he returned to the project of putting stronger emphasis on the formal identity of name and object i.e., on internal order of formal relations as what stands directly as a sense-giving condition of our symbolism. That is, his (failed) attempt to solve the problem of colors that was left over from his analysis in the *Tractatus* led Wittgenstein to see that this problem can only be untangled when the formal identity is understood in its full determinacy.

At the beginning of SRLF, Wittgenstein declares that the reason for the misleading impression that the color proposition “X is red and X is green” is a legitimate linguistic combination, is a result of the *success* of the symbolism of ordinary language in *concealing* the true logical form of this language (against insight B above, which stated that everyday language is already in perfect logical order, seemingly independently of what we could find when completing our logical analysis).<sup>8</sup> Therefore, SRLF’s aim is “[to] substitute a

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<sup>7</sup> Throughout his article, Engelmann tries to show that talking about some phenomenological language has to be based on the symbolism itself (as my insight B) and not on actual phenomenological concepts. “The idea of a ‘direct grasp’ or a reading of phenomena is also at odds with the strategy that Wittgenstein indeed employs to establish (‘to justify’) the phenomenological language. [T]he method for dealing with the analysis of phenomena is the employment of a symbolism. A symbolism shows what makes sense to say[hence] two indispensable notations would be part of this new language: the system of coordinates and the color octahedron” (2017: 98, 107). As we will see only the first system is presented in SRLF, thus Wittgenstein’s bitter taste from that lecture.

<sup>8</sup> At this point, we may observe that the color problem is not just what triggered Wittgenstein to accept that the atomic propositions are not independent of one another, but also what forced him to acknowledge the more profound issue that I emphasize here. In particular, the truth table for conjunction must not allow us, as seems to do in TLP, to construct nonsensical propositions such as “X is red *and* X is green” and segregate them merely as contradictions, which are legitimate linguistic constructions. That fact calls on us also to revise our anticipation of what is more likely to be the logical-structural form of the contained propositions. Thus, at variance with the most common understanding of the TLP, it is not the case that the color proposition presents something “without sense” (“sinnlos”) since it is the “limiting case[s] of the combinations of symbols” (TLP, 4.466) (as the number ‘0’ does not refer to a certain quantity yet is still part of the symbolism of arithmetic (TLP, 4.4611)). Rather, it presents a non-case of a combination of symbols and consequently a nonsensical proposition (“Unsinn”) when expressed in language (an exclusion).

clear symbolism for the unprecise one by inspecting the phenomena which we want to describe, thus trying to understand their logical multiplicity” (SRLF, 30). According to Wittgenstein, imprecise symbolism forces us to misconstrue the formal structure of the elementary proposition through a misconception of the normative way(s) in which it is to be categorized. This causes a deformation within the projective relation between the logical structure of the elementary proposition and the logical multiplicity of the worldly phenomena, in a way that narrows the ability of the first to manifest the true multiplicity of the latter. For example, imprecise symbolism can lure us to believe that the elementary proposition must be construed as, say, a subject-predicate structure *before* investigating the phenomena themselves. By conjecturing this structure, we limit ourselves to sentences that cannot account for the whole phenomenal range of appearances. Put in different words, the imprecise symbolism is distorting the proposition’s foundations in a way that prevents an adequate manifestation of the whole range of a given phenomenon; hence “we can draw no conclusions [...] from the use of these norms as to the actual logical form of the phenomena described” (SRLF, 31). The color problem is a good example of this flaw since “[o]ur symbolism, which allows us to form the sign of the logical product of ‘R P T’ [red, place, time] and ‘B P T’ [blue, place, time] gives here no correct picture of reality” (SRLF, 34). So, let us follow the intention of Wittgenstein from the SRLF and ask (the *wrong* question): What kind is the symbolism complying with a logical structure that can accurately project the manifestations of phenomena themselves?

Wittgenstein’s basic insight in SRLF is that we must include at least one numerical indication in each fully analyzed proposition: “The occurrence of numbers in forms of atomic propositions is [...] not merely a feature of a special symbolism, but an essential and, consequently, unavoidable feature of the representation” (SRLF, 32). How does that anticipate a result of the logical (a posteriori) investigation of the phenomena and how does it have implications for color propositions? To start with, Wittgenstein’s departure point is that “[w]e meet with the forms of space and time with the whole manifold of spatial and temporal objects, as colors, sound, etc. [...]” (SRLF, 31). When we investigate color as a spatiotemporal phenomenon, we should be aware that we are dealing with properties that admit of gradation: i.e., the manifold of colors must be projected by our symbolism in terms of degrees (of qualities). Holding on to that, Wittgenstein can give an analogy for the



space of representation that has the logical multiplicity of the color phenomena: i.e., a system that can be regarded as part of the method of projection by which reality is projected into our symbolism.

In addition to the benefits of basing the representational relations (between the logical form of the proposition and the phenomena) on the use of numerical auxiliaries, Wittgenstein was convinced that analyzing propositions in this way, i.e., as containing attributes with degrees of quality, like color, will bring us a greater accuracy than it would were we to analyze them

[i]nto a logical product of single statement of quantity and a completing supplementary statement [and] explain this contradiction [“X is red and X is blue”] by saying that the color R contains all degrees of R and none of B [and vice versa]. [For] no analysis can eliminate statements of [quality] degree. (SRLF, 32, 33)

Nevertheless, as mentioned above, Wittgenstein here assumes that the logical structures of color propositions come under the same general idea as the structures of propositions of quantitative phenomena (such as length and temperature).<sup>9</sup> The sole difference is that instead of having a place saved for a numerical element, what explains the exclusion between colors (and hence the reason why “X is green and X is red” is not a legitimate construction in language), is that each proposition sets a place that is reserved for one exclusive kind of a color’s degrees of quality. The exclusion of colors comes to our attention only through the incompatibility of constructing two formal structures in the same way, or in Wittgenstein’s words: “it is possible that two propositions [that contain the entity which they represent] should collide in this very form” (SRLF, 34). That means that the only reason that two color-

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<sup>9</sup> Thus, we face a choice between two bad options when we want to construct more complex propositions from the elementary one, if we think, as in the TLP, that analysis can yield the smallest possible degree of quantity. First, suppose that the logical form of the proposition of the brightness of some color is  $E(b)$ , which means that the entity  $E$  (here a color-entity can also be a place in space) has  $b$  (the smallest) degree of brightness. Now, if we want to construct a complex proposition that manifests a stronger (for example) degree of brightness, it will be necessary to combine two units together  $E(b)$  and  $E(b)$  to get  $E(2b)$ . But it is not true that the conjunction of two elementary propositions  $E(b)$  and  $E(b)$  gets us  $E(2b)$ , *for the conjunction of the same degree does not add or detract from it but rather keeps it the same*. The second bad option is to say from the beginning that the elementary propositions are different from one another, e.g.,  $E(b')$  will indicate a different quality of brightness than  $E(b)$ . However, now it is unclear how we can differentiate which quality will be used to construct the complex proposition, whether it is bright in a  $b'$ -type of way, or in a  $b''$ -type. But, of course, it makes no sense to ask this.

propositions exclude one another is because they cannot occupy the same place in the formal structure at the same time. That is the only prohibition or rule that this logical structure and SRLF's "correct" symbolism compels us to observe. But, as we shall see, any solution that does not, first and foremost, aim to clarify the true structure of the logical space at hand (as it has been declared, but not delivered in SRLF) would not give us the correct set of rules about how the multiplicity of that space is adequately projected onto our symbolism. When, in the early 1930's, Wittgenstein looked back at how he tried here (and in the *Tractatus*) to pack the uniqueness of the logic of colors into the elementary logical structure, he confessed,

[i]n my old conception of an elementary proposition, there was no determination of the value of a co-ordinate; although my remark that a colored body is in a color-space [see TLP, 2.0131] should have put me straight on to this. (PR, 111)

In the next section, I will consider how Wittgenstein develops another analogy that captures the unique intensive or internal unity of color space, and how this analogy presupposes the Tractarian formal identity of name and object through the manifestations of our everyday propositions.

### ***3. The octahedron as an analogy for the grammar of color***

The discussion of the "problem of colors" presented in section 2 stresses that even if we were to look at a single color proposition, the logic of color cannot be attained. That is, even after abolishing their independence and the (pseudo)demand of constructing them as a derivation from the application of TLP's logical operations, we are still leading ourselves astray by our symbolism. In SRLF, Wittgenstein overcame those two errors from the TLP but still didn't understand the unique content (symbolism) of the color word, i.e., he didn't grasp that color propositions belong to a logical space of their own.<sup>10</sup>

The most profound outcome of SRLF's failure was to lead Wittgenstein to accept, this time conclusively, that it is solely through the (right)

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<sup>10</sup> See also: "What was wrong about my conception was that I believed that the syntax of logical constants could be laid down without paying attention to the *inner connection of propositions*" (WVC, 74. my emphasis). See also: "In my earlier book the solution to the problems is not yet presented nearly plainly [*hausbacken*] enough[;] it still makes it seem as though discoveries are needed to solve our problems and not enough has been done to bring everything in the form of grammatical truisms into an ordinary mode of expression" (MS 109, 212, 213 taken from and translated by Kuusela (2011: 611)).

symbolism of our ordinary language that the logical necessity and impossibilities of logical space can be perspicuous shown. In other words, Wittgenstein realized that there is no ground-level formalistic structure to our symbolism, for the symbolism is directly, and coherently, able to project any kind of phenomena; that is, it already captures the multiplicity of reality (a retreat, of course, back to insights A and B). Thus the new (old) viewpoint Wittgenstein takes is that signs must have the multiplicity and qualities of a given space.<sup>11</sup> What does it mean that signs embody the multiplicity of the logical space by themselves? Showing that requires a change in the method of investigation. Now, instead of making hypotheses about an (allegedly) general structure of colors (or about all the propositions that “admit their gradation”), Wittgenstein will zoom in on the particular cases, on the particular instances of sense-making that occur when we speak about colors. Or, in more Tractarian words, the aim of the investigation now is to show how everyday language is already depicting the colored objects’ inner relations in space, i.e., how the structures of the objects themselves can be seen through ordinary language.<sup>12</sup>

In SRLF, the dominant thought was that we can manifest the entire multiplicity of any given type of phenomenon by using figure (or degree) as the sole indication that captures how our proposition determines a single place within the (representational) system. For instance, when speaking about someone’s height, I need only one proposition that determines the height of

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<sup>11</sup> See also: “[S]ymbols do contain the form of color and of space, and if, say, a letter designates now a color, now a sound, it’s a different symbol on the two occasions; and this shows in the fact that different syntactical rules hold for it” (PR, 107). So a proposition is a sign in a system of signs (PG, 131) which is equivalent also to its being a sign in the system of a specific logical space. And also: “A proposition is a logical form; & therefore I can’t give properties which it has & something else hasn’t. Therefore a proposition is simply characterized by rules of grammar which apply to it” (M, 110).

<sup>12</sup> One way to think anew with Wittgenstein is to see how exclusion, which was explained in SRLF as propositions’ collusion of formal (predictive) structure i.e., “If  $F(r)$  and  $F(g)$  contradict one another, it is because  $r$  and  $g$  completely occupy the  $F$  and cannot be both be in it. But that doesn’t show itself in our signs” [of the true table] will now be explained by relying only on the sphere of objects by “look, not at the sign, but at the symbol”. Exclusion is a logical necessity because “two [ordinary] propositions collide in the object” (PR, 106–7). Simultaneously, one should think back (as Wittgenstein does) to the nature of the object as it was initially presented at TLP. As we recall: “It [the object] is form and *content*” (2.025; my emphasis); hence the names must include *both* the object’s form and its content and, likewise, both must show themselves through language. It is important to note that I will not say that the object has a content of some shade of color or some measure of height, etc.; but only that reality as such has unique *content*. One instance of it is color.

the person, and from there, I can know which other heights it excludes, and also the relations between those heights compared to that of the given person. In contrast to the kind of phenomena where one or two determinations are sufficient to provide their entire range of manifestation, when examining colors counting only on one determination to achieve the correct logical structure of that entire space would be impossible. In other words: a more complex network (system of representation) is needed when we deal with the content of logical space of color. That begins to give us the reason why Wittgenstein moved to see the color space as analogous to a system of a group of planes that, in a manner of speaking, “lie together” on the surface of reality; hence he proposed a more complicated system than the co-ordinate system.

In general, what is it about the logic of colors that is so unique? For one thing, color is immediately experienced. One does not discover color through any sort of investigation or additional constructions beyond immediate experience itself. Furthermore, one is not relying on any intermediate investigation to supposedly prove some “facts” regarding colors or on human manoeuvring.<sup>13</sup>Engelmann correctly points out that Wittgenstein had started to develop a profound commitment to the way a set of rules of certain phenomena is to be discovered when saying, for example: “Phenomenology is a kind of ‘grammar’ of the description of those facts on which physics builds its theories” (2017: 105).<sup>14</sup> Thus, the next question that should be raised is: in what way does the grammar of color participate in our sense-making linguistic functions? To answer this, we need to investigate cases of using color words and try to come up with a structural *analogy* for a space that gives us a more perspicuous understanding of the logic of color.<sup>15</sup>

Before we will investigate those cases, it may be helpful, as a pedagogical exercise Wittgenstein uses as well, to adopt a spatial geometric structure for color space that still leans somewhat on the understanding of SRLF. The first analogy that we would prescribe would probably be that of “the color wheel”

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<sup>13</sup> That is why *reality* plays a more demanding and central role, in a manner of speaking, when uncovering the rules of this domain and thus why I (and Wittgenstein) use it as a case study.

<sup>14</sup> He takes this from Wittgenstein’s MS 105, p. 5.

<sup>15</sup> The use of an analogy, if this point has not yet been made clear, is the best perspicuity we can obtain to *that* space: since we cannot utter or construct the logical space in itself; we can only formulate a model based on our symbolism in use. Again, investigating the color propositions *does not* mean we are not taking into account reality as such.

i.e., a single circular plane upon the circumference of which colors are continuously spread. What I will show is how the color wheel is not grant us with the completeness of inner relations of colors. The fact that we use (only) one plane of attribution without the right limits makes this analogy to be deficiency presentation for the true rules of the logic of colors. Explaining why it is a wrong analogy will take us to the threshold of the importance of name-object identity and will give us a deep insight into what grammatical rules are. So, despite being a common analogy, it looks like *it still does not set up the right set of rules for all of the various linguistic cases of what can be said (or not) in that domain*. Only then are we in a position to see for ourselves what *role reality has in conditioning the rules for implications within our symbolism*.

(1) One logical necessity (or impossibility) of colors (as such) is that some colors can mix to create a new color, while others cannot. Nevertheless, the analogy of the wheel cannot show us which of the colors can be mixed to create a new color and which are just brought together. If the logic of SRLF were still in place, we could equivalently reject both propositions “X is red and X is blue” and “X is red and X is green” as being exclusions. But by blindly enforcing the prohibition of “colliding in the same form” we ignore particular mixtures that have sense, not necessarily exclude one another. Moving on to a more perspicuous wheel analogy, *both* of those propositions will count as legitimate mixtures while in fact, only the first one is. According to the logic of colors, it is impossible to have a mixture of greenish-red (what is the color that we get from that mixture?), but a combination of a reddish-blue (whether it’s purple, which is closer to blue, or magenta, which is closer to red) yields a new color, and thus makes sense to state. The color, instead of showing the logical necessity and impossibilities of color space, permits the mixture of *any* two colors. One just needs to, and indeed can, move to a middle point on the circumference between any two colors and then see or calculate what the new color is.<sup>16</sup> On the other hand, the color octahedron

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<sup>16</sup> The wheel is used as a good indication to show “[t]hat two colors won’t fit at the same time in the same place [and] must be contained in their form and the form of space” (PR, 107). Also, it indeed gives an expression for the outcome of mixing colors. But the wheel does so by solely implementing the rule of (unrestricted) conjunction between two colors. That causes one major problem: it does not show which of those pairs can be mixed or give the right understanding of the essence of what is a “new” color. It does not take into account their content. This is a delicate point to discuss. “Common component(s) of” (as the wheel shows) and “mixture of” are *not* interchangeable (PR, 279). That is, relations indicating addition or subtraction of some colored components can always be conducted, i.e.,

analogy provides a more accurate structure. For it actually shows us, through its nexus of planes, which mixtures are possible, and which are not. (See the picture, and my additional points below).

(2) Another logical necessity (or impossibility) of colors is that their form does not scatter, spread, or penetrate within space in the same way as numbers do. The space of colors have, in a manner of speaking, coordinates, boundaries, transitions, proximities, and affinities that result from their unique objective content. To show this, let us investigate another linguistic case. Think of a scenario in which somebody says: “Find me the color (or hue) that lies between violet and orange.”<sup>17</sup> Having no rule (restriction) other than that violet and orange cannot occupy the same place at the same time, this “task”, in light of the color wheel, can be taken as making sense, i.e., a task that can be successfully accomplished. The wheel (or language taken by itself without the presupposition of its adequate grammar) does not acknowledge any rule to stop us from the nonsensical quest for that middle color. We can measure (or even look at) the value of “the orange point” and of “the purple point” and then calculate accordingly which point is located halfway between them. However, it is a logical impossibility to be able to find there *any* color. There is *no* color lying between violet and orange, which is something that the wheel cannot prescribe as a rule. The mistake here is to think that even if there can be a “redder violet” (tending toward orange) or a “redder orange” (tending toward violet), there is a direct continuation of colors between orange and violet when in fact there is no real color (or point) “on the way” from orange to violet and vice versa.<sup>18</sup> The wheel, being an

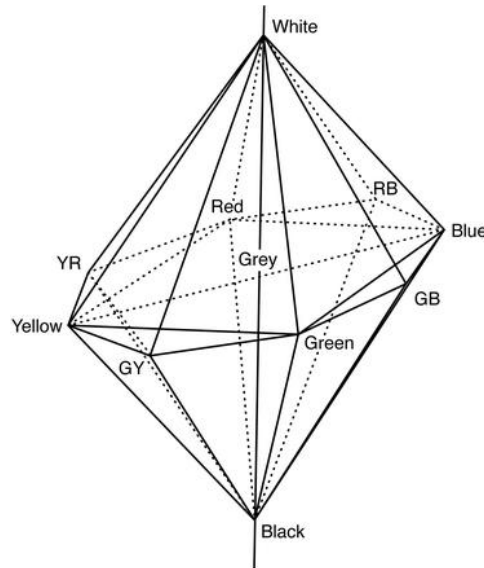
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I can always bring together (or say) “X is red and X is green”. But then I would make a nonsensical move in language since what I get is not a color (although, artistically speaking, it can be an interesting hue that is composed of red and green into some muddy opaque pulp). See also “I want to say that there is a geometrical gap, not a physical one, between green and red” (Z, 65). Furthermore, when I see (or say) “Orange”, I am not thinking or meaning that there are Red and Yellow involved too (rather, I grasp them *at once from the grammar of being Orange*). Wittgenstein makes it clear that to speak about (sensible) mixtures of colors isn’t, for example, to say that “There is orange right here so also there are red and yellow here”. But the wheel has to go through, literally, those components to indicate the “new color”. Engaging with the wheel system would make us fall back to thinking that the analysis of colors could be pursued in terms of conjunction and disjunction of elements; which (we saw already) could not work.

<sup>17</sup> A paraphrase of Wittgenstein’s example from PR, pp. 274–275.

<sup>18</sup> One cannot say that red is found midway between them because there is no continuity that passes through red. Red is only a common component of each: “We could also describe this as follow: if I have a paint pot of violet pigment and another of orange, and now increase the amount of orange

unlimited shape without vertexes or “endpoints,” misleadingly permits a certain motion on its circumference that makes it possible for nonsensical propositions to (appear to) make sense (or to be a legitimate move in the language game of colors, to use later Wittgenstein’s terminology).



What we get from the investigation that culminates with the octahedron analogy is a new analogy for the logical space of color, that takes into account the logical totality of necessities and impossibilities specifically of *that* space. *The color octahedron is the manifestation of the grammatical rules of colors*, since it shows, for instance, that we can have a reddish blue but not a reddish green, etc. (PR, 75), and that one cannot always find a middle color between any two random colors. From the octahedron, we can see the inner relations between the four primary colors (plus white and black), as opposed to any other structural analogy. Now it is built in a way that each edge has an endpoint (vertex), which prevents us from making a statement regarding any approximation of colors we desire. Adding to that the multiple nexus of planes, we simultaneously understand the right use of color concepts and can see how the logical space of color objects is structured, as well as what are the essential rules that we should take into consideration. The strength of the octahedron analogy is that it is a logically purified mode of expression, that “already wears the rules of grammar on its face” (PR, 278) and thus shows

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added to the mixture, the color of the mixture will gradually move away from violet towards orange, but not via pure red” (PR, 276. My emphasis).

which combinations we can and cannot make in language.<sup>19</sup> Yet it has to be emphasized that Wittgenstein is not dealing with an investigation into the structure of reality, to which language must surrender; or, put it differently, the identity between names and objects is *not* unbalanced in favor of reality, but rather has to do with finding ways to make us *see how our symbolism works when it is working qua a projector of these phenomena*.

Again, a profound understanding of the octahedron analogy should not take it as if it is an external, dictating model for language, but as an aid – or, if you wish, a glimpse into the ineffable identity of language and reality. The octahedron is not the anticipation of more grammatical models; hence it cannot be taken as the first step to set the quest to find other domains' rules. Instead, the language game (with colors), Wittgenstein says, is characterized by what we can do and what we cannot do. (Z, 63). The two cases I explored bestow this analogy a clearer perspicuity for manifesting the projection method with respect to colors. What we should do is to take it as an exclusive and exemplary moment that illuminates why and how possible configurations of objects and their unique content must be considered in establishing any kind of grammatical system.

#### **4. Rules of grammar and formal identity**

Finally, I would like to sketch a guideline that seeks to clarify the status of grammatical rules as they appear in Wittgenstein's middle period. In particular, I will argue that in order to accept grammar as a bundle of different types of sense-giving and self-justifying rules, we have to acknowledge the necessity of the formal identity between name and object: i.e., *how reality is incorporated into those rules*. For rules of grammar, as we saw from the color octahedron analogy, are rules that indicate the cohesiveness of propositions and reality. Otherwise, we will be dragged, or blindly march, into the midst of the illusion that it is possible to characterize a criterion or some kind of convention that captures (even partially) what those rules are. In

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<sup>19</sup> It will shed light on what seems to be vague so far to consider why one of the first appearances of the term 'grammar' in Wittgenstein's *corpus* refers to the logical space and *not* to our symbolism. The difference between language and the octahedron is that only the latter already wears the rules of grammar "on its face," while language is constantly, in a manner of speaking, indecisive about whether to disguise them or openly wear them. I say "in a manner of speaking" because this lack of decisiveness is no one's responsibility, but our own.



other words, I now want to turn our attention to the recognition that those rules sprout, figuratively speaking, from the resonances of the name-object identity, and prevail over reality and language as one, in a way that makes them eligible to be stated but not to be justified or analyzed further.

Let us try to tackle some of the “mysterious remarks,” as I referred to them in the second passage of this paper, and see if we can now make sense of them. We can see here a different terminology, while still relying on the same guideline of the formal identity from the TLP, for the relation of language and reality through the articulation of the concept of ‘grammar’. Grammar’s function can be seen as the fixation of a word within an encompassing set of rules. The place that it determines for the word is within a grammatical system governed by its own rules (and this could be any kind of system that has sense: colors, beliefs, expectations, and even systems of faith and rituals). So, to place a word is to fix its meaning (by means of language) in relation to other words inasmuch as they can be used together with the same commitment to a specific set of rules.<sup>20</sup>What we get from the opening stages of Wittgenstein’s “middle period” is that any proposition (when it makes sense) can always be examined as belonging to a grammatical system. Wittgenstein himself phrases the significance of grammar by saying that: “What belong to grammar are all the conditions (the method) necessary for comparing the proposition with reality. That is, all the conditions necessary for the understanding (of the sense)” (PG, 88). Furthermore, if we want to clarify what those rules are we must not look for any justification for them *at all*. Instead, as we saw when we considered the color octahedron, we should look at how language -- the system of propositions built on the formal name-object identity -- functions under the presupposition that each utterance of fact gives the finite while “the objects *contain* the infinite” (PR, 157) i.e., the infinite possibilities that aren’t exhausted by a single fact or a judgment. By examining Martin O’Neill’s “*Explaining ‘The Hardness of the Logical Must’: Wittgenstein on Grammar, Arbitrariness and Logical necessity*,” I will discuss an example of the confusion that may occur when trying to give an account of grammar without understanding or assuming the formal identity, which leaves nothing to hold us back from the temptation to formulate a

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<sup>20</sup> See also: “The connection between ‘language and reality’ is made by definitions of words, and these belong to grammar, so that language remains self-contained and autonomous” (PG, 97).

“criterion” or a pattern setting the essence of grammatical rules; by succumbing to that temptation, we miss one of its profound aspects.

O’Neill asks what one could mean by calling grammar “arbitrary” and “autonomous”. On the one hand, it is obvious from many of Wittgenstein’s remarks that his key idea at this stage is encapsulated in the understanding that there is no underlying structure of language to be uncovered: i.e., grammar should be autonomous and free from restrictions. Grammar is arbitrary

by virtue of not being amenable to external justification, neither in the sense that rules of grammar are *made true* by facts in the world (semantic justification) and nor in the sense that they are *given purpose* by an independent standard (teleological justification). (O’Neill 2001: 9)

That is, grammar’s autonomy from external justification of any kind stems from the fact that it is not “answerable to certain general metaphysical features of the world, or general semantic constraints on the possibility of representation” (2001: 6). But, on the other hand, as O’Neill (rightly) claims, grammar is also not arbitrary “for it is not the case that all possible grammars could be equally useful for us, or seen equally natural to us” (2001: 13).<sup>21</sup> This tension leads him to re-see evidence for the existence of some “logical necessity” still prevailing within grammatical systems. Indeed, he finds this necessity in what Wittgenstein refers to as “the hardness of the logical must” (2001: 15–16). Yet, although O’Neill is right to point out that logical necessity is still taking part in the plasticity of grammatical rules, I believe that he does not extract the right explanation for that necessity, and hence (even more mistakenly) characterizes its source as a normative feature of grammar.

O’Neill looks (as Wittgenstein asks us to do) at grammar itself and realizes that *while* operating *within* a system, grammar is rendered “useful” or “natural” when setting rules for that certain context: i.e., within *that* specific system *those* rules are logical necessities.<sup>22</sup> His proposal is that: “Whilst our grammar is certainly arbitrary [...] it is nevertheless clear that there are certain

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<sup>21</sup> And indeed his suspicion can be traced back to some of Wittgenstein's remarks, such as: “Then is there something arbitrary about this system? Yes and no. It is akin both to what is arbitrary and to what is non-arbitrary” (Z, 66).

<sup>22</sup> This stands against the necessity *of* the system which, in a sense, fluctuates more arbitrarily and can change according to our choices (e.g., using degrees of Celsius and not Fahrenheit).

‘naturalistic’ constraints on the utility of different parts of our grammar” (2001: 12–13). By “naturalistic” he refers to what is derived from the world we operate in as the place that “make[s] possible *our* practices of measurement, counting, selling[and] that provides an environment in which those ‘forms of life’ can be engaged in”. What O’Neill is doing is to conflate the “useful”, or “natural”, non-arbitrary layer of grammar (within a system) with how it is employed within the lives and practices of human beings; moreover, he characterizes this as what explains the “hardness of the logical must”(2001: 15). This leads to claim that there are normatively strong “intra-grammatical *must*” rules that have a “pervasive, non-optional and non-discretionary nature” (2001:21) embodying grammatical impossibilities (e.g., those that characterize “the color problem”). No doubt, our various forms of life (whether registered as conceptual, pragmatic, or habitual tendencies) embody some kind of criteria for how we follow a system’s rules in a non-arbitrary way. Yet – and this is my claim against O’Neill’s view, which will bring us back to (what I think is) the true foundation of grammar – what constitutes (parts of) grammar as such must be something even deeper than “sophisticated ‘naturalistic’ conventionalism” within each (human-oriented) system.<sup>23</sup>

To see this, one must see that the infinite grammatical possibilities (and hence the impossibilities) are not depended on any kind decisions or human tendency. These decisions and tendencies cannot be what Wittgenstein meant by “the hardness of the logical must” but rather they are just a way to determine a finite move within reality. In a profound way, as the consideration of the color octahedron also shows, a layer, or (if you want) the tougher (non-arbitrary) type of rules *must* be determined from *the fact that there is a reality* that grammar presupposes. To put that differently, the conventionality of our sophistication manipulations may erect some systems of rules through collective enforcement, or establish new ones, through the power of habits, or by construction of beliefs which thus become commonsensical; but this is not the same thing as to recognize, also from the rules themselves, the infinite potential of possibilities which are given and solidified through those rules. Unfortunately, this is the exact aspect of

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<sup>23</sup>Strangely enough, O’Neill brings in n. 17–18 in the same page remarks from Wittgenstein's texts, which contradict this line of thought. He characterizes them as part of the attempt to refrain from “over-inflating” the naturalistic criteria.

grammar which cannot be justified or narrowed down by giving or naming an explainable criterion. Wittgenstein himself would answer O'Neill's attempt to capture the "logical must" by stating a grammatical rule that cannot be reduced to any normative or natural convention. For example, in considering the fact of the capacity of sight and the kind of bare necessity it involves, Wittgenstein writes "'I see what I see': I say that because I don't want to give a name to what I see. I don't want to say 'I see a flower' because that presupposes a linguistic convention, and I want a form of expression that makes no reference to the history of the impression" (PG, 165–6), i.e., a rule that states only the logical *must* (in this case, the *fact* of our capacity for sight and the existence of a field of vision as such).

To conclude, I have argued that the basic infrastructure of an ineffable formal identity between name and object is still, in Wittgenstein's "middle" period, very much involved in giving our grammar its meaning and limitations, by establishing its logical necessities and possibilities. I am not saying that there are no rules that indeed can look as if they are governed and manipulated by our decisions, nor do I aim to segregate classes of grammatical rules from one another at all. Rather, I have tried to show that if one stretches a rule to its core (ineffable) justification, one should be aware of the nature of the ground on which it stands.<sup>24</sup>

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