

4. **Bildkonzeption**

„Das Wort „Bild“ hat etwa Gutes: Es hat mir und vielen andern geholfen, etwas klar zu machen, indem es auf etwas Gemeinsames hinweist und zeigt: Also darauf kommt es an! Wir haben dann das Gefühl: Aha! Jetzt verstehe ich: Satz und Bild sind also von der gleichen Art. (...)”
Wittgenstein, WWK, p.185

It seems clear and well-defended that the *Tractatus* inherits and investigates the philosophical problems arising within logicism. In fact, acknowledgement of this appears in the very preface of the *Tractatus*: there Wittgenstein expresses his debt to the work of Frege and Russell⁴³. This affiliation with the emerging problems of mathematical logic is investigated in Russell's own work. Hintikka, as well as some key Brazilian philosophers, such as Altmann, Dos Santos and Cuter, also recognize this connection. However, it is also necessary to consider the *Tractatus* as deriving from German-language discussion on the status of the natural sciences, particularly physics, and of the role of models (*Bilder*) in the composition of scientific theories, as the seminal works of Griffin and Toulmin. Since the 1990s, there has been a growing number of papers in international journals dealing with this central historical and conceptual affiliation between the *Tractatus* and the Philosophy of science of Hertz and Boltzmann.

With this, we have a more logical and conceptual tradition, which emphasizes the problems of the status of logic and mathematics in the *Tractatus* as well its primary grounding in the Philosophy of Science. Although these traditions rarely intersect, they are possibly complementary. They can certainly be reconciled for a more satisfactory exegesis of Wittgenstein's first book. As I believe the original ground of the *Tractatus* is indeed in the logicism of Frege and Russell. In particular, this connection is evident in the very preface of the *Tractatus*, as well as in a few references and in the *Tagebücher* 14-16. However, exogenous elements of this logicist tradition, such as a *Bildkonzeption* and the notion of a comprehensive logical space determined by the ultimate objects of

⁴³ Although there is a clear and certainly not unintentional asymmetry in this statement: “Nur das will ich erwähnen, dass ich den großartigen Werken Freges und den Arbeiten meines Freundes Herrn Bertrand Russell einen großen Teil der Anregung zu meinen Gedanken schulde.”

reality, are precisely what is then claimed to resolve the deadlocks of the *Principia Mathematica*. These are points of discussion in the German language on the Philosophy of Science in the late nineteenth century. In their works on Philosophy, Boltzman and Hertz deal with ways of consistently articulating the demand for physical *Bilder* in their theories and for a physical atomism as a comprehensive map of coordinates⁴⁴. In this light, the *Tractatus* can be taken as the attempt to articulate a new paradigm of analysis of language in truth-functional terms, through appropriate logic-symbolic notations, within a tradition that sees the formulation of *Bilder* as an interpretive advance in understanding the relationship of descriptive (scientific) language with a given (empirical) domain, without referral to metaphysical questions.

I understand the Philosophy of Wittgenstein's youth as a mark of original application of radical ideas about *Bildkonzeptionen*. Since the early Wittgenstein believed that description defined the nature of whole language, the originality of the *Tractatus* doesn't lie in the assumption of general conditions for the composition of a theory of representation but in its application in the systematic analysis of language, any possible language. Its originality lies in taking language as mainly consisting of *Bilder*⁴⁵. Ironically, it was Wittgenstein's originality and radicalism that led the *Tractatus* to its failure. More irony: it is precisely in the short of originality that the *Tractatus* collapses. Wittgenstein – aware of the “minimal originality” of his work – has taken often his *Tractatus* as a reproductive point of arrival of many authors and many traditions⁴⁶.

44 While both Boltzman and Hertz worked in this way, Boltzman seems to be the one primarily occupied with these ideas.

45 In Portuguese, the word “figuração” was chosen. Although the translation from the German “*Bild*” in *Bildkonzeption* to the Portuguese “figuração” seems to be the most adequate, in Portuguese the word implies a sense of sophistication and specificity that the German “*Bild*” does not have. One uses *Bilder* for images, figures, illustrations, drawings, paintings, screens, photos, pictures, maps and models amongst other things. This difference becomes clearer in 4.0311 when one has to translate the German expression *lebendes Bilder* with the term “tableau vivant” (“quadro vivo”) and not with “living picture” (figuração viva). One notes that the semantic scope of the German word used by Wittgenstein is much broader and more pertinent than the Portuguese “figuração”. In Portuguese, to call an image a “figuração” may seem artificial and, depending on the circumstances, it could be affected or pompous. Besides its more technical meaning, in Portuguese, “figuração” - like the word “representation” in English - is ambiguous as it can relate to both an action and a result of an action, when the German word is not (i.e. it is always a result). In turn, the English translation of “*Bilder*” to “images” brings over dangerous idealist or mentalist assumptions. Picture - from which we have pictorial - may bring another paradigm of representation, of a denotative instead of propositional, which may distance the reader from the idea of models or maps. A good argument for using picture is that this English word (much as the Portuguese figuração) allows the same *Umformungen* as the German *Bild*. For example, the German *abbildende Form* as like the English pictorial form or the Portuguese forma figuradora. We will come back to this point later. For these reasons, I have chosen to use the original German term *Bilder*. I use *Konzeption* instead of *Theorie* because it seems too strong to assume that there is any kind of real theory in the *Tractatus*.

46 See more about Wittgenstein as a reproductive thinker. (*Culture and Value*, p.19)

Since a theory of representation already appears earlier in other authors, whose work Wittgenstein was familiar with, the peculiarity of the tractarian period would then be the degree of generality of his theory i.e., the unrestricted scope of its principles: namely, the whole language. Being so general and inclusive, this notion of representation proved to be also critical in determining the legitimacy of all discourses, whether aesthetic, ethical, philosophical, scientific, or quotidian... To reiterate, I believe the *Tractatus* attempts, through the articulation of these two traditions, to carry out an eminently critical task. The *Tractatus* aims to determine what can and cannot be said legitimately. My research also shows how Wittgenstein tried to restore the *Bildkonzeption* and compositionality (embedded in the notation of the truth tables) into the background of debates on the neutrality of logic.

As I showed in Chapters 2 and 3, problems relating to the analysis of the colors triggered Wittgenstein to make necessary amendments to his work. In doing so, Wittgenstein acknowledged that some of his assumptions in the *Tractatus* would subsequently be wrong. He thus began to abandon the *Tractatus*, not directly in terms of abandoning its assumptions but indirectly by exposing the dead-ends of the concepts that derived from them. Some tasks could simply not have been completed using tractarian principles. As Bento Neto writes:

"The sole novelty of the project [of returning to Philosophy] consists in the fact that Wittgenstein proposes to fulfill a task already foreseen but not executed in the *Tractatus*, a task that this book had to, so to speak, "outsourced", the application of logic. This task, which can be characterized as a complete logical analysis of empirical propositions, or more simply, of propositions, is in part a work that was inaccessible to the *Tractatus* and in part retraces the work of the *Tractatus*, but in another way" (Bento Neto, p.51).

4.1 Logic Multiplicity; Fragmentation of Logical Space; *Bilder* and *Mäßstabe*

The *Bildkonzeption*, heart of the *Tractatus*, had to be modified too. No isolated proposition (whether atomic or not) should be compared with reality, but only with a system of propositions. It was for this reason that some concepts such as *Vertretung*, *Ersatz* and *Projektion* had to be revised, including the 1 to 1 remission between elements of the represented complex and the representation. To maintain bipolarity – the only basic source of exclusion until then – some changes in *Bildkonzeption* should have been undertaken to enable the multiple exclusions in propositions of gradation. As stated by Bento Neto:

“What we must recognize is that maintaining the principle of bipolarity in the context of the acceptance of logical exclusions which return from the truth-functional structure of the propositions requires the abandonment of the theory of figuration as advanced in the *Tractatus*. There is no way to suppose the now multiple alternative possibilities in the old two-option scheme: of the concatenation/non-concatenation of objects.” (Bento Neto, p.129)

In sections II and IV of the PB, there is the emergence of what might be called the new *Bildkonzeption*, wherein propositions would only make sense within a task and a given purpose. Moreover, we should enter numbers to index elementary propositions and propositional systems that would enable the exclusion of the same type of propositions. There, (cf. paragraphs 10 and 13) is maintained, as we shall see, the tractarian requirement that representation and represented complexes had the same multiplicity (4.04, 4041), but the idea of *Vertretung*⁴⁷ central to the *Tractatus* seems to be set aside by the emergent ideas of *Ersetzung* and *Erwartung*. On this point, Bento Neto writes: "This necessary difference between the application of the concept of *Vertretung* to names (in TLP) and to complexes (in the *Bemerkungen*) will be reflected in the exchange of *Vertretung* for the word *Ersetzung*, which is akin" (p.105). Perhaps revealingly, it is noted that Wittgenstein changes in his new concept of *Bildkonzeption* from a

47 The English language has a good expression that, when taken verbatim, properly expresses what is intuitively taken as representation: to stand for. We say x stands for y, when we mean that x represents or means y because x substitutes y, it stands for y. In passage 2.131 of the *Tractatus*, Wittgenstein uses the German verb *vertreten* which has a healthy ambiguity relating to representing or substituting also in a political sense. The world chosen by Pears and McGuinness in their English translation is representative. The use of both terms can detonate a political relation of representation, as in: When elected a politician represents, substitutes or stands for his voters (*vertritt*).

political notion of substitution or representation (*vertreten*) to a notion of economical substitution (*ersetzen*). In English, we can think of related verbs to this such as reimburse, compensate and indemnify which bring naturally the notion of expectation (*Erwartung*) in the context of temporal inflections to this semantic field. As Bento Neto writes:

“in fact, the "new concept of *Vertretung*" in its positive face, i.e. the concept of *Ersetzung*, clearly has a component of "time": the event that verifies or falsifies the proposition responds to this proposition as it comes to "replace it." The expectation disappears and the response takes its place.” (Bento Neto, p. 106.)

However, I believe that Bento Neto’s interpretation of paragraph 28 to quote of PB has something exaggerated about it. He believes that the occurrence of "*früher*" in the text leads to the rejection of *Vertretung* and, therefore, marks a rupture with the *Tractatus*. Obviously, issues such as *Erwartung* and *Anwendung* are foreign to the *Bildkonzeption* of the *Tractatus*, but I believe that § 28 points more to a reformulation or refinement of figuration or the concept of representation than to a rupture or rejection of it. This becomes clear with Wittgenstein’s addendum: “und das ist kein schlechtes Gleichnis”. Bento Neto also seems to indicate that further refinement of rejection when thinking of the notion of *ersetzen* or substitution, as a natural response to the difficulties of tractarian figuration to express some predicates which carry alternative predicates within a system. This is clear in the case of the *Color Exclusion Problem*⁴⁸, wherein dealing with a color, say, by negating a proposition about a colourful visual point, for example, would mean the automatic introduction of every color, or the full range of colors. Bento Neto affirms this:

"Instead of concluding, as we did, that any name of a predicate is the name or substitute of all predicates, it seems that one could argue that the fact that the proposition in which such names of a predicate occurs "talks" about them all. It just means that beneath the placid surface of apparent grammar, in which we find only the name of the privileged predicate, we must find, after some analytical procedures, also the names of the other predicates. If so, the reference made by the proposition to "the other predicates" should be explained not by the semantic function of the privileged predicate but by the names of those others predicates, which in the apparent grammatical form, are "hidden." Thus, each predicate name would introduce, would not replace just "its" predicate. But all these substitutions would be associated, where one occurs, it occurs the other

⁴⁸ From this point on when I refer to the *Color Exclusion Problem*, I will mean it as a conventional heading or abbreviation of the problem of gradations and other exclusions by contrariety.

substitutions, although only one of them is "visible" in the external, apparent form, of the proposition." (Bento Neto, p.113-4)

This interpretation is nicely consistent with what we are investigating in this work: to what extent is this metaphor of prospection in search of the hidden logical form of propositions not the most general assumption that leads the tractarian project to its collapse and abandonment, even after many attempts to refine and correct their conceptual geography and vocabulary? Anyway, this evolution of the vocabulary accompanies the compulsory and natural refinement of the concept of figuration that should become more sophisticated in order to reflect the logical multiplicity of phenomena or data of experience.

I believe that the fluctuation of the vocabulary in these sections of the PB shows rather the growing importance of the notion of "same logical multiplicity" _ no longer only as equinumerosity but as a parameter of a perspicuous notational system _ than a rejection of the notion of *Vertretung* or even a rupture with the tractarian *Bildkonzeption*. To illustrate this point, and to understand more clearly what *Bildhaftigkeit* is, one can compare the propositions with instructions on the construction of models in the paragraph 10 of the PB. This also indicates, via denial and colors, the emerging role of logical multiplicity. There, Wittgenstein writes:

"Denn, damit das Wort meine Hand lenken kann, muss es *die Mannigfaltigkeit der gewünschten Tätigkeit haben*. Und das muss auch das Wesen des negativen Satzes erklären. So könnte einer zum Beispiel das Verständnis des Satzes "Das Buch ist nicht rot" dadurch zeigen, dass er bei der Anfertigung eines Modells die rote Farbe wegwirft." (p. 57) my italics

In this excerpt of the meetings of Wittgenstein to the Vienna Circle, we also examine the importance of the logical multiplicity even in the middle period:

"Ich leite Sie durch meine Worte im Zimmer herum: „Jetzt gehen Sie drei Schritte nach vorwärts, jetzt zwei nach links, jetzt strecken Sie den rechten Arm aus, etwas höher, nein, jetzt schon zu viel, und so weiter. *Hier ist ganz klar, dass die Sprache die selbe Multiplizität besitzen muss wie die Bewegungen, die ich durch meine Sätze dirigiere*. Alles, was Sie tun, muss schon in dem enthalten sein, was ich sage. (Wenn ich an einer Maschine drei Geschwindigkeiten einschalten soll, so kann ich das unmöglich dadurch tun, dass ich einen Hebel bediene, der nur zwei Stellungen hat.) Ebenso kann ich durch meine Worte das Mischen von Farben dirigieren. Ich sage: „Nehmen Sie blau, etwas weiß, noch mehr weiß, jetzt noch ein klein wenig blau, und so weiter.“ Wenn ich nun einen negativen Satz ausspreche, wie: „Nehmen Sie nicht blau“, so ist damit nicht gesagt, dass Sie jetzt etwa die Hände hoch strecken, oder tanzen sollen, sondern der Satz verbietet nur, dass Sie blau nehmen, und gibt jede andere Farbe frei. *Also auch der*

negative Satz gibt der Wirklichkeit dieselbe Multiplizität wie der positive, und das allein liegt mir am Herzen, wenn ich sage, dass der negative Satz ebenso viel Sinn hat wie der positive.“ (WWK p.85) my italics.

I believe that at this stage Wittgenstein uses *vertreten* and *ersetzen* without much of a system, i.e. I don't think this variation in terminology corresponds to any relevant conceptual difference⁴⁹. So I do not agree with Bento Neto that the notion of *Vertretung* disappears in the interpretation of figuration in this phase and that the tractarian solution is explicitly rejected. There is more continuity, and a search for refinement, here than rupture. For me, the focus should be more on the role of *Mannigfaltigkeit* than on the weakening of *Vertretung*. The negation in cases of gradation can not only reverse the direction of the proposition, it also inserts an element of indeterminacy of the sense of the proposition; it leaves open what is the opposite, because the contraries are many or even infinite. The logical multiplicity of the symbolic element must be much higher too in order to accompany the symbolized element. This problem already appears in the context of Kantian infinite judgments. The tractarian thesis about the determination of sense should be reviewed at this point. Just as with the bipolarity. Bento Neto rightly defends the shift of this concept from the *Tractatus* to the PB:

“The bipolarity of the completely analyzed proposition, the necessary truth or falsity is apparently lost in the moment it is recognized that all language is "hypothetical". The "bipolarity" is rediscovered in the applicability or non-applicability of a certain "way of application" of the physicalist language. It is in the maintenance or abandonment of a way to apply the language to physical reality _ in the confirmation or not of an expectation.” (Bento Neto, p.153)

In the *Tractatus* it is as if we had p and not-p we could make a choice, which automatically and determinedly, excludes the other. We are within the third or intermediary excluded. If we are not at one pole, we must be at another. As Bento Neto writes on this context of the *Color Exclusion Problem* as a challenge to the tractarian notion of bipolarity: "What this means is that if I hold the space of

⁴⁹ In the *Tractatus*, Wittgenstein seems to differentiate and apply *ersetzen* and *vertreten* in a more consequent way. This distinction there seems to be more relevant. *Vertreten* means to be in the place, to stand for. While *Ersetzen* (*Ersetzbarkeit*) in 6.3 e 6.4 seems to come to elucidate the sense of the sign “=” in Mathematics. In 4.241 (*ersetzbar*) comes in the context of the non-necessity of the sign “=” in a more adequate notational system. In 3.344 and 3.244, *ersetzen* comes in a context of translation between distinct notations. In their Portuguese translations, both Dos Santos and Giannotti use the term “substituir” as a Portuguese translation for both the German terms *ersetzen* and *vertreten*.

possibilities mutually exclusive as the "referent" of the predicate name, then there would be no possibility of speaking in "connection" instead of the non-connection." (Bento Neto, p.139). Thus, in the case of gradations, to understand *p* is to have a scale or potentially infinite ruler, on which the selection of a dash does not simply exclude another dash, or the other end of the ruler, but all other possible dashes, even the ones that are not represented on the ruler. So that a dash on ruler does excludes other dashes but does not determine where we are in the system, ruler or scale, according to Wittgenstein's metaphor from that time⁵⁰.

In this middle period, as well as in the *Tractatus*, to deny *p* is not adding anything to *p*, and does not involve bringing anything new, ontologically speaking, to *p*. We are operating with the same kind of proposition in the case of gradations: for example, "A is green" is not a different kind of proposition in relation to "A is red". Both statements operate in the same scale and assume the same color code. Also, to understand a proposition in the *Tractatus* via the possibility of denial, as in the middle period, is to reach through (*durchgreifen*) all logical space (3.42).

The accent of the difference should be in the fragmentation of logical space: previously absolute, yet it has now many competitors. As in the PB 86, in the heading "Anti-Husserl" in the discussions in the WWK, "I have no pain" places us in the framework of a "ruler of pain", where having pain is one of its dashes. The proposition determines one of these dashes and requires the entire ruler. „„Schmerzen“ heißt sozusagen der ganze Maßstab und nicht einer seiner Teilstriche. Dass er auf einem bestimmten Teilstrich steht, ist nur durch einen Satz auszudrücken.⁵¹ More generally: The paradigm of substitution does not disappear, but must be refined in the direction of the logical complexity required to actually be able to represent facts or phenomena. Bento Neto seems to agree with this interpretation when he affirms:

"Thus, if we still want to talk of "substitution", is the fact on its entirety that will be "replaced" and not one of its parts, because the name already determines one among many possible states. (...) It is the fact is in its entirety is replaced, and not one of its parts. But this does not mean that now the name is the name of a fact, that the proposition is a name, that it maintains a logically simple relationship with what it represents, that is, on

⁵⁰ We have seen this also as corollaries of Demos' approach regarding particular negative propositions.

⁵¹ We deal with this theme when discussing Demos's paper about negative propositions in the first chapter of the present work.

the contrary, that means that there is no longer how to speak in logically simple.” (Bento Neto, p. 136)

We see here also another point against Custer’s interpretation of 6.3751 and the collapses of the *Tractatus*: We do not have to be in a terrain where numbers are relevant. “Measuring pain” entails a “scale of all pains”; “color” brings the whole spectrum of colors, and the same with temperature, length, volume, etc... Rather here I try to show the limits of expressibility of the tractarian logic and of the account of presupposition as *Bilder*.

By this time, the tractarian dichotomy of representation name/proposition, point or arrow, becomes more general, abstract, complex. The proposition is no longer a model (*Bild*), but has to be a ruler (*Maßstab*) brought to reality. It no longer corresponds to a conjunction of objects, but to an articulation of dashes on a series of rulers, scales, systems, or “logical spaces”. Rather, the proposition still has names for objects, but these names should follow logically, not only objects but also the whole “logical spaces” in which these objects appear. A name now marks or names or brings briefly a ruler, a “logical space”, a horizon of articulation. This is not that far from the tractarian name that was also not a tag for an object, but a point in a complex horizon of possibilities of concatenations with other objects. In Wittgenstein’s middle period, a proposition is the articulation of many rulers, *Maßstäbe*, or systems. I hold that this feature clearly represents a development or a radicalization of what already appears in 3.42 in the *Tractatus*, where the holism movement was sketched. To understand a proposition is to determine a point on this ruler which implies having the whole ruler (“a logical space”), with all its possible prolongations, at one’s disposal.

In another analogy from this period, I can use the handle of a system to determine the point of the scale where I want to stop, at which point of the scale I should be or want to be. There is no handle outside a system, as there is no presupposition without a system of propositions. This membership is not restricted to propositions about colors or measurement any more. In 3.42 of the *Tractatus*, Wittgenstein states that a proposition brings the whole logical space along with itself. I believe from the fragmentation, advocated here, of the logical space in numerous systems or grammars, but complete, we have the radicalization of this holism in the PB. Here, a name brings all the logical space (now fragmented) in

which this name is inserted. For example, in this radicalism, if we know what a lion is and if we know how to apply the name "lion", we should therefore know what is not a lion, and then we have all the "system", the taxonomy, of animals (even if it's rudimentary and altogether contingent). It is interesting to note that by taxonomical systems we have the same kind of problems as in the case of colors! Something similar happens again in 3.42, through the possibility of denial. It may be that, instead of bringing empirical reality to logic, one brings logic to empirical reality because there is no exclusion, strong or weak, by contradiction or by contrariety, which is strictly empirical. For this, we need at least the denial bringing alternatives, incompatibilities or exclusivities, and then we already have the logic, now naturally more comprehensive than the tractarian one of tautologies.

The emphasis of this new concept for depiction is the logical multiplicity and the notion of a ruler, no longer of the *Vertretung* and the notion of *Bild*. These analogies do not have to disappear but become irrelevant because of the need for a more figurative sensitivity to exhibit the variety of phenomena. As Bento Neto claims:

"In 86b [PB], the "tractarian interlocutor" appeals to the name, the *Bedeutung*, of the same pain (4. line), and Wittgenstein responds (in 5. line) that the word pain heißt, expresses the whole scale. The word corresponds to a space of possibilities and, accordingly, we can say that it means (*heißt*) this space, but not that it names in the tractarian sense of *bedeuten*." Bento Neto, p.137.

This Bento Neto's interpretation is consistent with the spirit of this thesis. There is no rupture with the *Tractatus* as Wittgenstein attempts to refine the complete analysis of propositions but only when he abandons this ambitious and misleading project, or when he ultimately holds this project to be misleading. The thesis of the independence of logical propositions and the distinction between name and proposition (*Bedeutung/Sinn*) are just inevitable victims of this new conceptual rearrangement of the same old tractarian project.

4.2 The Photo x Model paradigm: what does it mean to be false?

Photos are representations of reality, as well as models or maps. No one would doubt this constataction. However, the appeal of these different kinds of representation regarding the possibility of falsehood makes us note that we should sort them out into different categories of representation. It is worth mentioning here that false does not means inauthentic or illegitimate in the way fake does. I restrict myself here to another kind of falsehood. Falsehood means, intuitively and directly, representing a state of affairs, fact or complex, which does not match the actuality of things. False does mean to represent, but without correction. In this context, we may ask: Can a model be false or incorret? Yes. Can a map be false or incorrect? Yes. Can a photo be incorrect or false? In some sense: No. Thinking about what Wittgenstein took to be false in his tractarian period⁵² may help us explain our intuitive negative response to the logical possibility of the falseness of a photo or portrait.

From this perspective we can say a photograph is more a reproduction of a state of affairs than a description of it. A photographic reproduction can only be false in the sense alluded to above of: in the sense of an illegitimate, inauthentic painting. This sense of being false is something irrelevant to us here. Falsehood in this tractarian period means to represent existing elements in a non-existent connection. The accent of this interpretation should be in the non-existence of a connection between the represented elements, not in the existence or absence of these very elements that make up the connection and give the combinatorial horizon of possible connections. For example, under this intuition, we may understand the representation (be it oral or visual) of a unicorn because we understand horn and horse separately and we know that they could come articulated in some way. According to this interpretation, what makes the fictional representation of a unicorn inaccurate, or false, would be the absence of this entity, as the concept finds no counterpart in the *Wirklichkeit*, even though we can understand it, because the connection is possible.

We could say that a photograph reproducs a fact _ an articulated complex _ while models or maps comprehend something more abstract: they represent the

52 Based partly on Kienzler's findings, we can think of the tractarian period as lasting from the *Tagebücher* 1914-16 until the the end of 1931.

possibility of a fact, the possibility of the articulation of some previously given elements. Therefore, somehow it is intuitive to think of propositions, if descriptive, as analogous to models and maps. While their constituents, the names, correspond to the representative paradigm of photos. For photos and names cannot be false in the sense that maps, models and propositions *prima facie* can. Thus, it seems that the latter are more like betting on alleged or expected actualities in the world. Or in other words, their sense is precisely in the fact that "they can be wrong on that bet," which would highlight the idea of an essential bipolarity of propositions. In order to make sense propositions should be able to be false and true. They should be able to say something correctly and falsely. The failure here should be always possible, among other reasons, because the negation must be always possible. As we defend here, in the tractarian period, the syntatic possibility of the negation must always match the always expected semantic possibility of falsehood.

The dual modality (namely: should be possible) is strictly necessary and consistent with all, so to say, tractarian metaphysics: every possibility is necessary because it belongs to a necessary, absolute and exhaustive horizon of possibilities. In stark contrast to this paradigm, in the case of photos and names, their meaning comes from the direct pointing to or association with counterparts in the world, in a logical touching of the world. Figuratively speaking, they are bets that always win without risks of defeats or failures. In this context of distinctions in representational paradigms, Wittgenstein states: „Im Satz wird gleichsam eine Sachlage probeweise zusammengestellt. Man kann geradezu sagen __statt: Dieser Satz hat diesen und diesen Sinn __: Dieser Satz stellt diese und diese Sachlage dar.“ 4.031. In tractarian thinking, the name is not a “common photo” of the object to which it points or denotes but a sort of photo of the combinatorial possibilities between this object with other objects.

Again, thinking metaphorically, the name would then be a kind of logical or modal picture, expressive of the combinatorial horizon of an object. In *Tractatus*, the name is the fixed point around which meaning must rotate. The truth value presupposes meaning and this, in turn, presupposes the elementary logical touch on the world.

Clearly, all photographs entail a certain material resemblance (with great variety in scale and depth) to the represented fact, while models and maps

represent things because they present a possible articulation between the elements of reality represented by their elements. Nothing materially or visually similar should have the representation in common with the represented fact. Its significance is more abstract. It comes exclusively from the representation of possibilities. Indeed, we can still have abstract models of concrete facts, such as mathematical simulations of weather conditions. Or we can have concrete models of abstract complexes, like when I use markings on a blackboard to calculate the properties of a polygon. We can also have abstract representations of abstract complexes, as we do with algebraic equations mapping geometric figures. We can use stones to represent animals in a jungle to show their distribution in a given field. We can represent people in a medical office with numbers, to simulate the order of their arrival. In none of these examples, we must assume some degree of material similarity between the represented elements and the complexes that represent them. The latter must stand for the former so that all their relevant possibilities of combination in a given context are respected.

It also seems clear to us that, while it makes no sense to require from a photo that it represents future events or non-existent facts, in principle, an essential characteristic of models is that they are always able to represent constructions, complexes or potential facts. Models can represent situations which have never existed, but that may eventually exist, even if they never actually do exist. While models can represent non-existent facts, it seems hard to imagine this possibility in the case of photographs. Photographs seem to have a certain essential appeal to actuality, while models relate to possibility. Clearly, I can have models of an aircraft that has not been built yet and possibly never will be built. This non-actuality of the aircraft does not in any way damage the significance of the model; on the contrary, it is its very condition. The non-actuality of a state of affairs does not at all damage the meaningfulness of a proposition. Or, in other words, the possibility of non-actuality is also the very condition of its sense and understanding. „Ein Name steht für ein Ding, ein anderer für ein anderes Ding und untereinander sind sie verbunden, so stellt das Ganze __ wie ein lebendes Bild⁵³ __ den Sachverhalt vor.“ 4.0311. This characteristic becomes even clearer

⁵³ As we already noticed, in this paradigmatic case, to translate the German *Bild* into Portuguese with the word “figuração” seems extremely artificial.

when we ask about verifiable states of affairs, which we still do not know to have been actualised or not. We understand questions even if we do not know the answer to them. According to this perspective, we are able to understand a question because the potential for answers is open. The answer is a matter of verification, as in: Is it the case that I have coins in my pocket? Is it the case that your folder is empty? Is it the case that you are not Brazilian?

4.3 The Problem of Falsehood: developing the analogy to maps

Here I argue that negative atomic facts are irrelevant to the tractarian theory of sense, even when dealing with the sense of false and true denied propositions. That is, we do not need to think of negative facts as constituting tractarian ontology, if we assume two points. First, we have to understand the intuitiveness of thinking of propositions as maps of reality, as rehearsals that simulate the possible relationships of objects which they represent, just as we saw in the previous section. In fact, to understand a map does not imply that the complex that the map represents is actualized in the world, i.e., it may not exist now, nor in the past or in the future. Looking for something in the world implies that we know what we are looking for, but not that this something has ever existed at anytime, anywhere. This idea clearly remains in Wittgenstein's intervening period as shown, *inter alia*, in paragraph 28 of the PB:

“Die Erwartung hängt mit dem Suchen zusammen. Das Suchen setzt voraus, dass ich weiß, wonach ich suche, ohne dass, was ich suche, wirklich existieren muss. Ich hätte früher so ausgedrückt, dass das Suchen die Elemente des Komplexes voraussetzt, nicht aber die Kombination, nach der ich suche. Und das ist kein schlechtes Gleichnis. Denn sprachlich drückt sich das so aus, dass der Sinn eines Satzes nur die grammatisch richtige Anwendung gewisser Wörter voraussetzt.” p.67

Moreover, even if all propositions were false, the world should contain objects whose possible connection could be respected by their names (4.025,6) although not necessarily by negative facts.

A second point in the perspective defended here, is to understand that the tractarian account of sense comprises two asymmetric levels, namely, sense and truth value. So, to actually understand a proposition, whether true or false, is to

understand the same fact (always possible!) (4.021,2). In this tractarian period, to understand a proposition is to know which fact would make it true (4.024). So I hold that passage 2.06 doesn't introduce another ontological category, i.e., that negative facts constitute the world, but that it only introduces a distinction in the terminology between the existence of states of affairs (positive facts) and their inexistence (negative facts)⁵⁴.

However, the semantics of falsehood and of denial represent problems for realistic and descriptivist theories. I understand the realism in semantics here as the combination of two intuitively reasonable theses, which undoubtedly make up our vision of the natural and ordinary sense of truth and descriptive sentences. The two theses are that:

- 1) one has to look to reality for that which makes a descriptive proposition true.
- 2) one has to be able to identify in the reality its part or portion, whether state of affairs, a fact, an entity complex, etc., which makes it true.

When combined, these two theses reflect an assumption of a correlation based on the condition and truth value of a proposition. To understand a proposition is, therefore, to know which part of the reality must be actualized to make it true. In principle, we can, therefore, take assurance in the possibility of identifying the truth value of a proposition by comparing it or referring it to reality. The conditions of sense of a proposition must be always logically previous to its truth values. The natural elegance of these realistic theories of truth should be noted here. To determine whether a sentence is true or false we have to "look" at reality. Such a natural and regular procedure makes this doctrine more attractive than truth theories based in, for example, strictly pragmatic elements or in redundancy and contextual elements.

According to the correspondence theory of truth, true propositions stand for, replace, describe, represent or identify actual facts, taking verifications from reality, i.e. by checking what the situation is. This requirement does not seem to be problematic in the context of true propositions. However, given this descriptive characteristic, what does identify false propositions in reality? Do they not

⁵⁴ We will investigate again this passage 2.06 in the last chapter of this work, when I will defend a holistic interpretation of *Tractatus* based on the non-ontological distinction between world, reality and *gesamte Wirklichkeit*.

identify anything? Do they fail to describe? Are they poor symbols, then? Are they no propositions at all? However, we draw consequences from falsehoods. The falsehood of propositions is legitimate: false propositions are meaningful, although they are not true. Their meaningfulness is not jeopardized by their falsity (cf. 4023). Consequently, should false propositions describe something as well? But following this reasoning, what is that false propositions identify? Would they identify negative facts, situations that are merely possible and not actual? Do they identify the non-being or what is not the case? Does the denied true propositions to now fail or cease identify what is the case, in order to begin to identify negative aspects of the reality? If one continues to require a uniform treatment of propositions following their strictly descriptive nature, what would the ontological counterpart of linguistic contradictions be? Contradictory facts, impossible facts? Should I demand, therefore, that the world also contain contradictory facts?

"Only the combination of some objective elements can make a sentence true." This type of classical realism of metaphysical demand for independent elements of our cognitive structure is the ontological signature trend in Wittgenstein's *Tractatus* sui generis. The tractarian system requires a network of discrete and eternal objects as shown in its ontological part, making up the ultimate reality of the world that defines a comprehensive network of complexes combination (*der Logische Raum*). Question: How does this realistic but peculiar paradigmatic system, subsequently, inherit and try to solve the problem of false and true denied propositions?

For representation Wittgenstein in the *Tractatus* uses *Bild*, a word that, as we have seen, holds little technical sense but has great semantic scope and application, from drawings and pictures to maps and models. It is clearly preferable that *Bild* be understood as maps or models so that some exegetical problems can be avoided. An example of the kind of exegetical problems to be avoided by this analogy is precisely the demand of the composition of reality by negative facts for its full meaningfulness or the understanding of the falsehood of propositions. When we understand propositions as maps of the reality we do not need to assume that there are negative facts in that reality. We must, therefore, in this context, insist on a seemingly trivial but important distinction: The propositions are not portraits or photos, but maps or models. Every portrait is a *Bild*, but not all *Bilder* are a portraits. A photograph, as we have seen, requires

some iconicity, some material similarity between the represented and the representation, because it is strictly spoken a reproduction. Consequently, the important step in the tractarian account of meaning is that propositions have a certain structural similarity, but not material, to the represented complex. A proposition must be able to exhibit, by its structural disposition, the form of the represented complex, i.e. the possibility of articulation of the constituents of the represented complex.

Thus, it's misleading to understand *Bild* as a portrait or photo. The more direct and secure analogy, as we have seen, would be a model, or map, which simulates a (possible) part of the reality through its constituent. To correlate a map with a physical reality, I only need to understand the cardinal orientation of the map, and what relevant points it shows. I then need to understand the reference of these components and to understand how they are articulated: I need to understand the map's configuration (cf. 2.1-2.182). Once I have understood the map I can then search for the world facts it refers to. We do not look for a negative fact, but we search for a fact which is obviously positive: the fact which is understood through the map. If it is not accurate the map is "false", if it is accurate it is "true" or "correct". Just as understanding a map does not imply that the complex illustrated by the map exists, understanding a proposition does not imply that the complex that it represents exists. The map and its points represent reality differently, just as with propositions and their names (cf. 3.144). We understand maps and propositions through the articulation of their specific points or names that refer to points or objects other facts in the world.

Indeed, we make sense of maps through their reference points. This is clear in fictional books which include sophisticated maps which, although "false", can be understood and systematically studied. This is the case with the sophisticated maps of Tolkien's classic cycle *The Lord of the Rings*. I do not have to suppose that there is a fantasyland (be it positive or negative) somewhere in reality to understand Tolkien's maps. We just have to understand their constituents, what they stand for and how they are articulated. The lack of need for negative facts is also clear in another analogy with maps. We can interpret a map that depicts Berlin as the capital of Brazil despite it being incorrect, because we know the places to which it refers, and we know their grammar (i.e. their "logical space"): Brazil is a country, and countries are composed of cities, not vice versa, and one

of the cities in a country is the capital and so on. A map that would place Brazil as the capital of Berlin, would then be rather unintelligible in this context.⁵⁵ In both cases we do not have to assume that there is a complex, whether positive or negative, (nor a fact “fictional place”, nor a positive nor negative fact “Berlin Capital Brazil”), which corresponds to a map in order to understand it.

In 4.025, Wittgenstein makes these demands on the understanding of a Bild even clearer with examples from the dictionary. Dictionary definitions deal with names and not with propositions. To understand a proposition in contemporary language we must know the names that are involved here, their references or meaning, how they are articulated and how they can be articulated, so we can have, in principle, an inventory of every possible proposition in a language. The elementary propositions of the *Tractatus* are the proper place for requiring a biunivocal articulation of the logical form of objects and their names, thus avoiding, ambiguities and synonyms, and ensuring the exhaustion of the represented complex which the complex represents. To understand the sense of these final propositions of the truth-functional analysis, we need objects, their names and their possible connections. Even if all propositions were false, the world should contain objects whose possible relationships were respected by their names. I need a world with things that is not empty, in order to understand the falsity of propositions. I need real articulated objects in order to project the sense of these propositions, even if it is false. Furthermore, since propositions are facts, if we only have false propositions, this world will not be empty, because it would already contain these facts or “false propositions”.

The negative atomic facts are fully irrelevant to this tractarian period, if we understand that it comprehends two distinct and asymmetric levels: the composition of the meaning and the determination of truth value. Trivially, we need sense to determine the truth value, but we do not need to understand the truth value in order to understand the proposition. A true proposition *p* exhibits a fact *x* that is actualized in the world. If the proposition *p* happens to be false or denied it would exhibit the same *x*, but this time this *x* would not be actualized in the world. If the true proposition *p* was denied, its meaning in the *Tractatus* would be

⁵⁵ To my surprise, when I presented this section in a conference at the Universität Leipzig, a German student brought my attention to the existence of Brasilien – a city in the north of Germany. Brasilien is a small Dorf in Schönberg (Holstein) in the state Schleswig-Holstein.

reversed, and thus it would not display a new fact, but the bet on the actuality of this fact would be wrong. Conversely, finding not- p to be false means that p is an actuality in the world. The fact that I understand from not- p is exactly the same fact that makes p true (cf. 4.0621). In other words, to understand a proposition, be either true or false, is to understand the same fact. To understand a proposition, and understand a map, is to understand the complex through its constituent points, which if it is actualized in the world makes it true. That this complex is actualized in the world (positive fact) or not (negative fact), it is neither a necessity nor a sufficient condition for the understanding of the proposition. To understand Tp , Fp , $F\neg p$, $T\neg p$ is to understand the very same fact p . It is interesting to highlight that $F\neg p$ is the same as Tp and that $T\neg p$ is the same as Fp , because in doing so it becomes clear that the negation problem could be reduced to the problem of the falsehood through the truth-functionality or, in a more general view, to the problem of the tractarian bipolarity. This makes the syntactic possibility of denial and the semantic possibility of falsehood collapse into one unique possibility. Indeed, are negative atomic facts important for understanding the tractarian theory of meaning? No. So we have the protection of our intuitions. The world is positive, it is effective, it is Wirklichkeit. We will return to this issue in the last chapter, where we advocate a holistic view already within the *Tractatus*.

4.4 The Non-being: Modality x Complexity?

In this context it seems interesting to bring up a recent discussion about modal or negative objects published in the journal *Manuscrito*, during discussions prompted by the *Logical Forms* of Oswaldo Chateaubriand. In his article on the semantics of falsehood and denial (cf. Pereira), Luiz Carlos Pereira asks if it is possible to get rid of modal elements to treat what a proposition identifies in reality. He notes that in constructive theories of truth and sense, modal or subjunctive aspects in the figure of potential proofs are unrestrictedly and legitimately used, i.e., proofs of conjectures that have not been demonstrated yet, but that may be correct. Under this intuition, leaving the context of mathematics, we would have that false or true denied propositions do not need to always be dealt with in terms of controversial negative aspects that would compose reality,

whether negative facts or negative properties. Rather, they could have their descriptive capacity ensured by the assumption of non-actual or merely possible facts or predicates. (cf. Chateaubriand, *Logical Forms I*, p.47).

Chateaubriand answers this question about modalities by categorically refusing the postulation of possible objects as references of propositions. This thesis, at its limits, unifies the modal treatment of sense, “creating” contradictory facts and postulating “reality” to possible worlds. Chateaubriand cautiously covers the metaphysical employment or implications of the technical use of possible worlds. The solution to the central question in his Philosophy which relates to the notion of truth by correspondence involves his ontology of properties. According to Chateaubriand, propositions have characteristics that show or identify some combination of objects and properties. They may work, following the tractarian suggestion, as a kind of map or model of the world. However, according to Chateaubriand, true denied propositions, will reveal the negative properties of the reality through its negative predicates by means of a predictive analysis. That is, we should not postulate that modal objects compose reality, since we have negative properties composing the world revealed by the predicative analysis, perspicuous in the notation suggested by Chateaubriand. In particular, they are not solely the non-being, for, according to this interpretation, they would also constitute the being of the thing.

This, therefore, would avoid the Kantian problem of the indeterminacy or vagueness of the infinite predicates. The reason for this would be that negative properties fulfill the criteria for legitimacy of properties defended by Chateaubriand. According to this concept, they are well determined by their conditions of applicability: We know the conditions in which we apply negative predicates, if we need to apply them to any object of the reality. I know, for example, that is correct to predicate “non-dentist” to a recent graduate of medicine, in the same way that I can apply the predicate of “non-sunscreen” to a jar full of mayonnaise. These predicates are all well-behaved for we know under what conditions and to what objects they may be applied. Negative predicates in negative propositions would thus reveal negative properties of reality, in its different orders.

What is evident from this predicate interpretation is that Chateaubriand can sufficiently answer the issue of semantics of false and denial, but with an

extension of the ontology, now understood as a bearer of negative elements. The problem seems to be a natural result of modal assumptions, so that if we have a hierarchy of properties in our ontology, it seems to be outlined. This works well in Chateaubriand's work because there is the privilege of a predicative analysis of the propositional content of sentences combined with the acceptance of the existence and instrumentality of negative properties. In the tractarian system we have a realist ontology of simple and eternal objects that make up the state of affairs in the world- seemingly the subtext to Pereira's question (2004, p.185). The tractarian ontology works with objects that define the whole modal horizon of concatenation of composite in the world. These particular objects play a fundamental role in determining the sense of the propositions of our language, as we saw in our discussions of compositionality. In short, in this tractarian period that extends until 1931, we understand a proposition if and only if at some level we do a comprehensive and unambiguous analysis in terms of elementary propositions. "Wissen wir aus reinen logischen Gründen, dass es Elementarsätzen geben muss, dann muss es jeder wissen, der die Sätze in ihrer unanalysierten Form versteht." (5.5562). The propositions for the *Tractatus* are legitimate when they are models or maps of reality. It is noteworthy that there would be no denotational failure of a tractarian name. If the proposition is genuine, if the proposition has, so to speak, good grammar (i.e., it respects the logical syntax of language) its names will denote a single object in reality without synonyms or ambiguities. This is what we might call the transcendentalism of the *Tractatus*. The ontology of simple objects is a requirement, a pre-condition, and therefore necessary for the determination of the sense of a proposition. Otherwise, to know whether or not a proposition is true would depend on another proposition, which in turn would depend on another, in an endless and pointless remission. In the *Tractatus*, Wittgenstein postulates a limit to this regression, the eternal objects: a point wherein, in a sense, language touches reality. (Cf. 2.1-2.17 e 2.0211)

Since the *Tagebücher* of 14-16, Wittgenstein already saw the need for a sharp distinction between names and propositions for the proper understanding of their role in a theory about the expressiveness of the assertive discourse, which is a direct remission to the tractarian passages 4.03-2: "Nur in soweit ist der Satz ein Bild eines Sachverhalt, as er logisch gegliedert ist! (Ein einfaches-ungegliedertes-Zeichen kann weder wahr noch falsch sein). Der Name ist kein Bild des

Benannten! Der Satz sagt nur insoweit etwas aus, als er ein Bild ist!”(Cf. *Tagebücher*, 3.10.14).

Names and propositions are symbols, i.e., they are members of a linguistic system of remission to extra-linguistic elements; they are symbols that have different functions. In the *Tractatus*, Wittgenstein uses an image in order to elucidate the distinction between these two symbols. For Wittgenstein names are like points and propositions are like arrows (cf. 3.144). According to tractarian *Bildkonzeption*, an elementary proposition is endowed with a determined sense because it is composed of simple signs that designate things in a state of affairs. A sign would have a propositional content if it is a complex that can be analyzed in terms of elementary complexes, whose parts are projected or point (as with the image of an arrow) to its sense, i.e., to the complex of things that would make it true. Here we can highlight that in ordinary language there is no structure that can be taken as elementary and simple. There is no simple linguistic sign which we use to refer to objects. Nothing on the surface of the language can pass as the names or elementary propositions of the *Tractatus* due to its logical radicalization. All the names we use have some descriptive dimension and all statements also involve a sense of others. As a result, no example can be removable of our everyday language. The absence of examples does not constitute a problem for Wittgenstein because it postulates the existence of such symbols _ even if we do not get into direct contact with them _ so that our ordinary language, as well as any possible language, works. Proficient speakers of a language do not to be conscious of all such examples to formulate and comprehend sentences in everyday speech, just as we do not need to know the mechanisms used by the body to produce sounds in order to speak (cf. 4002). An elementary proposition or a tractarian name is like a theoretical postulate for the full functioning of figurative language to be guaranteed. Nonetheless, Wittgenstein was considering some notion of negative facts as a possible response in the *Tagebücher* 14-16 (Pereira, p.185), but he abandoned it in the *Tractatus*. There, Wittgenstein “resolves” the issue of falsehood and the denial of true propositions by appealing to *Bildkonzeption*. As we have seen, his intuition is to tackle a proposition as a kind of map or model or *Bild* of reality. We look to the proposition to know what is happening in the world, just as we look at a model airplane to investigate the features of a real airplane. If I understand a proposition, I know what the case

should be, and which combination or complex must be realized for the proposition to be true (cf 4.024). For that, Wittgenstein's *Bildkonzeption* has to draw a fine distinction between names and propositions, as each one represents reality differently.

With the clarification of the mode of propositional representation as intransitive we can explain the semantics of negation and falseness in the tractarian system. We do not then need to think about modal or negative aspects as composing reality in order to know to what a false proposition refers in the reality, in the way Chateaubriand works with (see for example Chateaubriand 2004 and 2008). Nonetheless, we must assume that names only symbolize things by reference, while propositions symbolize things by *showing* the fact that makes them true. The true proposition and the false proposition symbolize the same fact: in the case of the latter, the fact is not actualized; but in the case of the former, it is. Indeed, the exit in the *Tractatus* is through a distinction of modes of symbolism. Wittgenstein's accent is on a sharper symbolism, while Chateaubriand's is on a more permissive ontology.

4.5

Towards the propositional symbolism intransitivity

For propositions, in a tractarian background of discussion, make sense, they must describe a fact and thereby exhibit their conditions when we understand them. When we understand a proposition we can identify the fact that makes it true. In this way, the names in a fully analyzed proposition correspond to objects in a state of affairs. Therefore there is, in a figurative context, a binary relation in the symbolism of a name which does not pertain to propositions: the act of naming is to name something. Thus, in principle, the question "what does the name symbolize?" makes sense. As observed by Dos Santos: when applied to a domain of names, the verb "to name" is a direct transitive verb (cf. Dos Santos, p.21). The name is a symbol that stands for something. Bento Neto agrees with this interpretation by referring this issue directly to the need to see a proposition as a complex symbol and to the problem of falsehood:

"To the connection, always effective, of the names may correspond the effective connection of the named things, but also may correspond the non-connection of named things: a proposition may be able to represent both possibilities. It is in order to do justice to this ability that we speak in this case of a complex symbol, of a symbol comprising more than a simple symbol. If have to can say that different names are different symbols, it is because without this distinction, that is, we take the propositional symbol as a simple symbol, there is no way to account for their ability to represent two things - both the effectiveness and the non-effectiveness of the fact, thus escaping from the paradox of falsehood." (Bento Neto, p.115)

Following this intuition, propositions make sense because they can be true or false when compared to other facts. They have truth conditions, which a name does not have. On an elementary level, it makes no sense to speak of a false name in the same way that we can speak of a false proposition. A name that does not symbolize anything is not even a name; a legitimate proposition that does not symbolize anything is just false. In his work Dos Santos thus identifies the reason for the (false) false paradox, authorship of which is attributed to Parmenides, namely due to the confusion of different modes of symbolizing of propositions and their constituents.

Parmenides postulated that all discourse with sense should be true, collapsing, thereby the notion of "making sense" to of "being true" by taking a case of specific symbolism (such as a binary relation of naming) as an example for all symbolizing. According to Dos Santos, the paradox of falsehood arises from an improper generalization. Apparently, if we accept the arguments of Parmenides, the conditions of meaningfulness of any discourse would be enough to exclude in principle the possibility of its falsehood. In light of this, Dos Santos argues:

"For the name "Socrates", for example, meaning is to symbolize something, to keep certain relationship with something else. In a statement, sense is to articulate in one of two ways, affirmative and negative, both names and, thus, to present as real one between two mutually exclusive relations among the named things. (...) Therefore, that the statement maintains a relationship of symbolism with something is what defines it as true, but absolutely not what defines it as significant." (Dos Santos, *Harmonia*, p. 442)

The binary relation of symbolizing inherent in naming does not apply to the case of the symbol-proposition. According to Dos Santos, in this situation, the verb "to symbolize" is not directly transitive, but intransitive.

"If we insist on calling the proposition a symbol, we should abandon the idea which the argument of Parmenides intends to defend as a truism that every symbol is a symbol of something, that everything that means, means something. If we insist on saying that the proposition symbolizes and represents, we must understand the verbs "to symbolize" and "to represent" in this context, in an intransitive sense. "(Dos Santos, *Harmonia*, p. 21)

A more perspicuous reading of the passage 4.022 and of the *Tractatus* in light of this discussion about the different way of symbolizing between names and propositions seems to solve this need for ontological inflation. It is no necessary the interpretation in which Wittgenstein need to use negative facts or possible facts as referral to false propositions, as we already defended. According to José Oscar Marques:

"The proposition shows its sense, and the proposition shows how things are if it is true, that is, their truth conditions. By showing this, the proposition is not showing a 'something' (situation or a way of being of things, whether actual or merely possible). What it shows has a more abstract character: it shows the answer to the question "which situation makes it true?" Or, what is the same, "what does this proposition say?" We know the sense of the proposition when we know the answer to these questions, and we know it directly from the same proposition, because it shows that answer in its structure. In the particular case of the elementary proposition, what it shows (i.e., its sense) is not a possible connection of objects, but the connection of objects which makes it true (obviously, this is an actual connection because a connection which is only possible cannot make a proposition true). And it shows that regardless of being true or false, i.e., whether there is a connection that corresponds to it. That there is no connection that corresponds to it does not deprive it of sense but simply makes it false, because its sense does not consist in a connection, but in being able to exhibit the answer to the question of their truth conditions." (Oscar Marques, *Ontologia do Tractatus*, p.61-2)

This passage contains what I identify as Oscar Marques' main argument by which he establishes his reply to and criticism of the reading of passage 4.022 of the *Tractatus* by Edgar Marques. Oscar Marques writes his paper on tractarian ontology as a response to what he calls a wrong way of reading passage 4.022. For Oscar Marques, the interpretation propounded by Edgar Marques would result in the need to interpret *Sachverhalte* as a possible states of affairs, while *Tatsachen* would need to mean the actual state of affairs to cope with the full significance of false discourse. At this point, he approaches Edgar Marques as a representative of the interpreters who assume this modal distinction between *Sachverhalte* and *Tatsachen* in the *Tractatus*. This interpretation would run against the argument for the complexity distinction between *Sachverhalte* and *Tatsachen* that Wittgenstein himself clarified to Russell at a later point:

What is the difference between *Tatsache* and *Sachverhalt*?" *Sachverhalt* is what corresponds to an *Elementarsatz* if it is true. *Tatsache* is what corresponds to the logical product of elementary props when this product is true. The reason why I introduce *Tatsache* before introducing *Sachverhalt* would want a long explanation. (cf. *Apendice III, Tagebücher*, p. 130).

Edgar Marques does say about himself that he is a representative of the interpretation of a modal distinction between these two concepts. His paper aims to:

"reflect on the positions held by Stenius (...) trying, therefore, to show that the distinction *Tatsache-Sachverhalt* cannot be understood in terms of relation of complexity, under the penalty of unfeasibility of the project of the *Tractatus*, which is only possible to understand as articulated along a difference between possible and actual." (Edgar Marques, p. 55)

The demand for the interpretation of a modal difference between facts and states of affairs arises from the identification of the sense of the proposition to the situation which it represents. It is only under this assumption that merely possible non-subsistent *Sachverhalte* may appear as necessary correlates in order to provide sense to false elementary propositions. As evident in the following passage from the article of Edgar Marques: "The sense of an elementary proposition is, therefore, the connection of objects by it described." (p. 58). This way of thinking about the proposition turns it into a symbol in the manner of a name, an interpretation which is prohibited by Wittgenstein with the *Tagebücher*. According to 4.022, propositions show, and does not state, their sense. Propositions do not work in the same way as names. They are composed of names that cannot fail to denote their meanings. The sense in propositions is in the conditions that must be satisfied by the named objects' conformation to be true. By understanding a proposition we learn which fact, in principle, we must seek and find in the world to make it true. As Oscar Marques argues:

"The absence of the complex does not affect the sense of the proposition because the reference to a complex, as a singular entity, can be eliminated by means of analysis, by replacement through the references to the components that are combined in the complex. Of course, that a proposition has, to some extent, to become dependent on, now, the success of reference to these last components. Consequently, the analysis should continue until the whole description has finally been eliminated from the representation, coming to propositions composed solely of simple signs not subject of analysis (names), which describe intrinsically simple entities (objects). At this point, when all the

complexity have been banished from the relation of reference, it is also vanished every contingency, and there is no possibility of some elements of the proposition to be referring to a non-existent entity in the situation." (Oscar Marques, p.140).

In this tractarian period, we can say that we would never speak of the non-existence because all meaningful propositions would be truth functions of elementary propositions and these, in turn, do not contain any reference to things that do not exist. Indeed, Wittgenstein already writes about the coverage of the world by names in the *Tagebücher*:

“Mit der Weltbeschreibung durch Namen kann man nicht mehr leisten als mit der allgemeinen Weltbeschreibung!!! Könnte man also ohne Namen auskommen?? Doch wohl nicht. Die Namen sind notwendig zu einer Aussage, dass dieses Ding jene Eigenschaft besitzt u.s.f. Sie verknüpfen die Satzform mit ganz bestimmten Gegenständen. Und wenn die allgemeine Weltbeschreibung wie eine Schablone der Welt ist, so nageln sie die Namen so an die Welt, dass sie sich überall mit ihr deckt.” (*Tagebücher* 14-16, 31.5.15)

Using a Platonic allegory in his work, Dos Santos argues that making an assertion is comparable to launching of an arrow. The fact the arrow may miss the target does not invalidate the shooting of an arrow. In principle, when an arrow is launched it can hit the target or not, there is no third alternative. By analogy, when we enunciate something, we would assume one of the two possible poles of sense: our statement should be able to be true and false. These poles, targeted by the statements would be exhaustive and mutually exclusive. If the proposition is not true, or if the released arrow does not hit its target, it does not cease to be a proposition, even if it is false. A fired arrow that does not hit its target does not cease to be an arrow.

However, as Chateaubriand notes in his response to Luiz Carlos Pereira in *Manuscrito* 27, the image of the archer may be supplemented by a third possibility in the act of shooting the arrow. The archer can miss the target, hit the target, or he can also fail in the very shooting of an arrow, for problems with the bow, for example. In the case that an arrow simply cannot be launched, it does not miss nor does hit the target, because it was not even fired. The *Tractatus* does not assume this third possibility precisely because it removes any possibility of failure in a legitimate proposition.

There, Wittgenstein defines the proposition precisely by the shooting of the arrow. If there is no firing, then there is no proposition either. Wittgenstein

consequently makes all propositions legitimate by definition. For if there is no denotational failure there would be no proposition. Incidentally, this is what the passage of the *Tractatus* seems to suggest verbatim, condemning traditional metaphysics and revisiting the efforts of the philosopher. Wittgenstein affirms that whenever someone wishes to say something metaphysical, one must show that he/she does not give meaning to signs in his/her propositions.

This is a key point in the difference between Chateaubriand's system and the tractarian system. Precisely when Wittgenstein attacks Frege, he also marks a difference in the treatment of a proposition as a system that allows for denotational failure. Therefore, Wittgenstein also marks the difference between his Philosophy and that of Chateaubriand. For Frege there is the possibility of propositions being composed by some non-denotative element without losing their status of propositions and the Fregean position is endorsed by Chateaubriand. Thus, it is interesting to note how the criticism Wittgenstein makes of Frege could also hold for Chateaubriand, precisely because the latter extends Frege's position on non-denoting elements composing propositions. This is shown clearly in the journal *O que nos faz pensar* 23, dedicated to the investigation of the logical-philosophical aspects of negation. In his article of this issue, Chateaubriand presents his main theses. This treatment of non-denoting elements ultimately justifies why Frege and Chateaubriand accept propositions that are neither true nor false in their systems, while Wittgenstein would not accept this lack of truth value. Indeed, in passage 5.4733 of the *Tractatus*, Wittgenstein asserted:

„Frege sagt: Jeder rechtmäßig gebildete Satz muss einen Sinn haben; und ich sage: Jeder mögliche Satz ist rechtmäßig gebildet, und wenn er keinen Sinn hat, so kann das nur daran liegen, dass wir einigen seiner Bestandteile keine Bedeutung gegeben haben. (Wenn wir auch glauben, es getan zu haben.). So sagt „Sokrates ist identisch“ darum nichts, weil keine Bedeutung gegeben haben. Denn, wenn es als Gleichheitszeichen auftritt⁵⁶, so symbolisiert es auf ganz andere Art und Weise — die bezeichnende Beziehung ist eine andere —, also ist auch das Symbol in beiden Fällen ganz verschieden; die beiden Symbole haben nur das Zeichen zufällig miteinander gemein.“

56 Dos Santos translates “auftreten” and “vorkommen” as “intervir” in Portuguese. The natural translation here in this context should, however, be “aparecer” or “acontecer” that Giannotti employs. This would be in parallel with English translations that employ the verb “appear”. In Portuguese, “intervir” gives an improper sense of activity to the neutral “aparecer”.

It is interesting to note here that one of the main attacks at traditional metaphysics made by Wittgenstein would not work in a system that allows propositions with non-denotative element. This system defends a more paradigmatic Platonism, a system of independent and eternal forms. Here this conflict shows itself to be based on a disagreement between founding principles or bases of different systems. Being pragmatic, we can choose a system by the plausibility of its consequences arising from its assumptions. The realism of Chateaubriand and tractarian realism require ingenious ontology, but Chateaubriand's is certainly the most intuitive. Chateaubriand's system, besides coping with the subtleties of analysis, as in the case of predicative denial, still accepts negative properties in ontology. While the *Tractatus* postulates a complete and unambiguous analysis in terms of simple and eternal objects, without showing what they are and how to actually carry them out. Moreover, it is this demand for complete analysis and elementary propositions that lead to the radical intractability in the *Tractatus* and its subsequent abandonment, even by his own creator.

4.6

Towards the projective relation between elementary propositions and the state of affairs: arguments against its alleged isomorphism

In this part of my work I try to deal with three more general problems. Firstly, what do we really mean when we say that there is an isomorphism at the basis of the *Tractatus* in its demand for the remission of elementary propositions to states of affairs that make them true? Secondly, to what extent is this kind of technique an intrusion into a field guaranteed by a metaphysical system going to assist in understanding? Or will it generate even more technical problems (conceptual or metaphysical) than we had before?) Third, what can we actually win (or lose) in understanding the *Tractatus* with this technical intromission into its philosophical ground? This leads us to think about the extent to which our questions may impact adversely on our answers. In general, our questions determine the possible horizon of our answers. Inappropriate questions can lead us away (either completely or to a significant degree) from understanding precisely that which we had wanted to understand before formulating them. For example, a question about the relationship between logic and the world can lead us to think of

logic as something outside the world that should then somehow be *ad hoc* applied to it. I think the *Tractatus* makes us see precisely how logic permeates and executes the world in the sense of *durchgreifen* presented in passage 3.42. It makes no sense to think of a world without articulations, i.e., a world without logic. We cannot even strictly imagine a world without organization. (cf. 3.03 – 3.0321). So the same goes for the question about the relationship between world and language that commentators on the *Tractatus* repeatedly pose. I believe these questions can wrongly lead us to the suggestion that we have two structures _ isolated and ontologically independent from each other _ that in some sense should touch each other or be harmonized in order for discourse to be possible. But there are not two ontologically distinct or independently organized structures in the *Tractatus*. There is no such categorical separation in the *Tractatus*. The question of whether there is an essential harmony between language and world trivializes if we have the correct understanding of the radicalism of the *Tractatus*. What is the possible relationship between one thing and itself? Obviously, this relationship with itself must be essentially harmonious, so to speak.

If we are not more cautious with the questions that we impose on the *Tractatus* we cannot realize the radical nature of its vision. It makes no sense to speak from a point outside of the reality as if talking from outside the bounds of language. There is no outside view of the world. Language and logic should be in the world, making it up. This is the meaning of the prohibition of the meta-language. This is the sense of determining internally the limits of what can be said or of what may be in the world, already presented in its Preface. No vision from the outside, external to the world, is possible. And this is naturally sound. Our propositions belong all to the world. They are in the world. They are facts of the world. We should take into account that Wittgenstein states this categorically when he writes: “Das Bild ist eine Tatsache.” (2.141). And again in 3.14: “Das Satzzeichen besteht darin, dass sich seine Elemente, die Wörter, in ihm auf bestimmte Art und Weise zu einander verhalten. Das Satzzeichen ist eine Tatsache”. We would then trivially come to the truism that there cannot be a world outside the world.

This is the hallmark of a radical holistic or internal point of view in the *Tractatus*: everything should be resolved within the world and within its facts, because this is the only perspective indeed possible. Language and logic are not

separate systems for the facts of the world to then be somehow harmonically sent to it by some mysterious process of isomorphisms or by an eternal mirroring of their essences, under the assumption of an essential harmony between language and world. In the passages below, we can see the need for the (metaphysically generous) assumption of an isomorphism to make the form of names and objects match each other:

"Just as every object has a " form ", given by its possibility of existence in some states of affairs and not in others (2.0141), every name must incorporate the syntactic possibilities and impossibilities that guarantee the isomorphism. The latter should be as constitutive of the nature of the name as the possibilities and impossibilities are constitutive of the ontological nature of the object. There is no name not bound to this combinatorial frame. This net is not "added" to the name from outside in the form of an ordering that applies on a naming already constituted, but is, rather, constitutive of the naming as such." (Cuter, *nomes*, p. 42)

Or later in the same article:

"When he says that "it is only in the propositional nexus that the name has meaning," Wittgenstein is reminding us that the isomorphism between language and world demands that the combinatorial possibilities that allow the insertion of the name in that propositional nexus are constitutive of the name as such " (id. ib.)⁵⁷

Nowhere in the tractarian texts does Wittgenstein speak about an essential harmony, nor about isomorphism. As with the secondary literature of Stenius, Black, Stegmüller, Hacker, Glock, and Hintikka⁵⁸, we come to think about the projective relationship between elementary propositions and states of affairs. We ponder the relationship which makes these true, being normally elucidated from two access routes to the seemingly harmless tractarian *Bildkonzeption*: the essential harmony between language and world⁵⁹ and the technique of

⁵⁷ We will come back to this issue in the last chapter of this work when dealing with passage 3.42. In that passage we see the need for a holistic net of combinations in the *Tractatus*: in order to understand a single, whether linguistic or ontological, we must understand all the combinatorial possibilities of this singular, and this brings over the need for a comprehensive "logical space" or, as in Wittgenstein's middle period, a system of propositions.

⁵⁸ „Es mag sein, dass dieser Sprachgebrauch ganz absonderlich wirkt, doch er ist lediglich das genaue sprachliche Pendant der Vorstellung, dass einer in der Welt bestehenden Beziehung eine sprachliche Beziehung als Gegenstück entspricht. Und diese Vorstellung ist durchaus nicht absonderlich, sondern im Gegenteil geradezu eine Selbstverständlichkeit für diejenigen, die – wie z.B. Stenius – Wittgensteins Gedanken des Elementarsatzes als einer isomorphen Darstellung ernst nehmen.“ (Hintikka & Hintikka, p.61)

⁵⁹ As the passages 2.18 and 5.4711 do seem to point out: „Was jedes Bild, welcher Form immer, mit der Wirklichkeit gemein haben muss, um sie überhaupt _ richtig oder falsch _ abbilden zu können, ist die logische Form, das ist, die Form der Wirklichkeit.“ and “Das Wesen des Satzes angeben heißt das Wesen aller Beschreibung des einen und einzigen allgemeinen Urzeichens der Logik.”

isomorphisms. The first is set up in the generous metaphysics or ontology of the *Tractatus*, a kind of symmetrical mirror or complete remission in the relationship world-language. And the second is imported from Logic and Mathematics, justified by bringing more clarity to the behavior of models and avoiding ambiguity when they are sent to their counterparts in reality.

In the *Tractatus*, we have seen that we have the assumption of a rigid truth-functionality in the composition of language, i.e., complex sense and truth, whatever they are, should be reduced to the sense and truth of the elementary propositions that compose them. For this, we need elementary propositions which accompany the multiplicity of primitive states of affairs and the simple names that accompany them. And these can be grouped as simple objects, articulated in states of affairs. This ontology comes to fulfill the conditions of figurativity presented in the *Bildkonzeption*. In Wittgenstein's *Tractatus*, we have general representations that are organized and perfectly traceable (2.1-2.225). The representation must be a complex, a fact, not a list or a bunch of names or objects. Otherwise, there wouldn't be a simple Bild. One complex must be sent to another. "Das Bild reicht bis zu ihr. Das muss die Wirklichkeit berühren, da das Bild ein Modell der Wirklichkeit ist." (2.1511-2.1515). A complex must possess the same logical multiplicity of the shown complex, i.e. it must be possible to identify in the complex that which represents as many elements as there are to be distinguished in the represented complex. There should be in a certain sense a direction to prevent symmetry in a representational relationship, i.e. if x is a complex represented by another y, it must be discarded, by the conditions of representation that the complex x represents y as well. If x is also a representation of y, x has to be a fact too, because only an actual complex can represent. This symmetry of representatives would make y always true, as well as x. However, a true picture should not exist *a priori*. (2.225). Therefore, Wittgenstein makes use of the concept of substitutivity, i.e., the elements of the representation stand for (*vertreten*, substitute) the components of the represented complex. They replace the components of the represented in the representation. In addition, a complex with disorganized elements cannot represent nor be represented. Only an articulated complex can be taken as a legitimate representation. Wittgenstein calls this determined articulation of elements of the representation the structure of the representation (*Struktur der Abbildung*), and he calls the possibility of this

articulation the form of representation (*Form der Abbildung*). In conclusion, we have the last and most important step in this tractarian *Bildkonzeption*: the representation and the represented must bear the same articulatory possibility for a relation of representation to be established. In the tractarian jargon, representation and the represented must have the same logical form (*dieselbe logische Form*).

Then, repeating in a more direct and punctual way the tractarian conditions for something be taken as figuration or representation of facts (*Bild der Tatsachen*), this something: 1) must be a complex; 2) must be a complex referring to another complex; 3) must exist the same multiplicity between both; 4) there must be a direction by the substitution in the representation of the represented complex' elements, without symmetry; 5) must have a determined structure; 6) must have a form; and 7) must have the logical form identical to that of the represented complex.

It is easy to see what Wittgenstein intended with the last clause. When he insisted the elements of the representation have the same relationships between them as the elements of the represented, he wanted to gain a sense of surrogativity or, rather, of a preservation of relations from one domain to another by the conservative substitution of elements of the represented by elements of the representation. Such as in the paradigmatic case of a model or map we have seen. It should be possible to see the same combinatorial possibilities in the two domains, the same logical form, and the same relationships between their components. So, by thinking of a legitimate proposition as a complex which represents, and the fact which makes it true as the represented complex, the tractarian metaphysics fully justify this referral or preservative projection of the proposition to the fact that makes it true.

What we have with the recurrent proposal for isomorphism in the *Tractatus* from the secondary literature is not the mere suggestion of a common form, iso (same) and morphia (form), but something stronger. We have the suggestion of a conservative 1 to 1 correspondence of the form of a complex organized in another organized complex. For example, in his presentation of the *Tractatus*, Stegmüller clearly represents this more mathematical approach, by writing that:

„There are thus two requirements for this sort of isomorphism between two complex facts F and F'. (1) there must be a one-one mapping between the individuals and between the equal-place attributes; (2) based on a mapping of this sort between

categorically like elements of F and F' , there must be a one-one correspondence between the simple states of affairs of F and F' such that a state of affairs in F exists if and only if the state of affairs form F' that is paired with it under this correspondence exists. The mapping of the first kind, by means of which the correspondence that generates the isomorphism between elementary states of affairs can be established, we shall call an interpretation rule.“ (Stegmüller, p. 407)

The exegetical proposal is not only that it would make sense to expect that we have a strictly logical isomorphism between elementary propositions and state of affairs and/or the thesis of pre-established harmony, but they would be conditions for understanding the tractarian conceptual geography itself. I argue here that the two interpretations fail by assuming a wedge between world and language that belies the holistic approach present in the *Tractatus*. The opposition between the world and language as two ontologically different and separate entities in the *Tractatus* is misleading. Rather, we could hold metaphorically that that the ontology and the language are two different forms of discourse about the same facts that make up reality.

The essential harmony seems to trivialize things. Obviously, we have a language, the world and a sense of harmony between the two because, strictly speaking, they are the same, under the aegis of a holism of facts. All that there is, indeed, are facts! In a straightforward way, we have to deal only with them, because they are all that we have at our disposal. Thus the interpretation in the *Tractatus* that makes language ontological and the world linguistic becomes more natural. This justifies the passage of linguistic results to ontological ones and vice versa, because in the end we are talking about the same thing (4.014). There is no local view or semantic theory in the *Tractatus*. (cf. MAX, 2011).

There is nothing like two essences or structures which are separate and autonomous, but somehow harmonic or isomorphic. The world is a whole composed by facts. There's nothing like language as an independent structure or essentially mysteriously being sent isomorphically and harmoniously to the world. In the *Tractatus*, the world and language are not distinct or separate: indeed, they are composed of facts, which in turn are composed of objects, which determine the exhaustive horizon of possibilities called logical space. This would be one of the hallmarks of a holism in the *Tractatus*: to see the world always as a whole, without the possibility of an external vision, which automatically bans meta-language. From the facts that compose the world we can see the possible and

legitimate language, the logic and, why not, the mystic also, due to the movement of recognition of a necessary and limited totality through a contingent actuality. We will discuss further other characteristics of tractarian holism, including the ways it was extended through Wittgenstein's middle period, in the last chapter of this work.

Insistence on the systematic application of the technique of isomorphism in the conceptual geography of the *Tractatus* seems even more problematic, especially regarding the relationship of this application with the tractarian metaphysical roots. This leads to inevitable conceptual difficulties that would be perhaps impossible to be resolved. What do we gain when we think of the tractarian *Bildkonzeption* as incorporating a kind of isomorphism, i.e. a 1 to 1 preservative remission between two complexes? The positive results of this interpretation really seem to be attractive enough to encourage and justify this almost commonplace application among the interpreters of the *Tractatus*. From it, we gain some technical instrumentality with clearer criteria for identifying and applying this two-way preservative remission. And with this we can have greater clarity as to what can be understood by projection in the *Tractatus*. Furthermore, we still gain a more detailed understanding of the functioning of the models in its *Bildkonzeption*.

Symmetrically, there is also space for us to ask what we can lose with an unrestricted application of the isomorphism, especially in the metaphysical claims that are made in the *Tractatus*. Common examples of these requirements are the existence of eternal and simple objects to determine an absolute logical space of possibilities or the existence of essentially simple names composing independent elementary propositions. The answer to the question about potential losses shows us that we lose more than we should accept from tractarian conceptual geography. A preliminary list of losses leads to the conclusion that, if we want to really stay with the idea of representation by an isomorphism in the *Tractatus*, we should adopt it more carefully.

First, to see isomorphism in the *Tractatus* is not entirely appropriate from a meta-theoretical standpoint because it is anachronistic. At no time did Wittgenstein ever make use of this term in any of his works, including in his mature phase, which is easy to prove after the virtual availability of Wittgenstein's *Nachlass*.. Anyway, it would be enough to find that this term has never been used

in any of his preparative or more finalized texts or in his main works. Indeed, it is plausible to doubt that Wittgenstein possessed technical knowledge about isomorphisms and their utility in mathematics. The isomorphic mapping techniques are relatively new developed devices in mathematics. For example, in the Category Theory, a method of algebra wherein one makes recurrent use of isomorphisms between structures to clarify the systematic transformation of abstract structures, only arose in the 1960s.

A second and more serious problem is that, even if the isomorphism between structures captures and properly expresses what Wittgenstein wanted conceptually in the remission of a meaningful proposition to the portion of reality that makes it true, I believe one does not see what this relatively simple mathematical technique would do with the tractarian conceptual geography. Roughly, it would wipe away the metaphysics underlying the *Tractatus*, i.e., it would make metaphysics irrelevant for the determination of propositional sense. For example, there would be no reason for the demand for an ontology of ultimate elements of reality for propositions having determined sense. This is because, by thinking in terms of mappings between structures, the elements of the mapped domain can be chosen arbitrarily according to the contextual relevance, making it possible for their relations and properties to be preserved in the structure image. This *ad hoc* selection presupposes the possibility of the meta-language, clearly vetoed in the *Tractatus*. Still, the conservation of the horizon of combinations between the elements of the proposition and the state of affairs, essential to the *Tractatus*, would not have to be given by a necessary community between the essence of language and the essence of the world, as indicated by the thesis of essential harmony, supported for example by the introductory essay of Dos Santos⁶⁰. This harmony could thus be established by the isomorphic preservation of one structure in another, if we can understand a proposition as a structure of names and a state of affairs as a structure of objects.

⁶⁰ Some passages in the *Tractatus* really seem to indicate the plausibility of this interpretation, such as: 2.203 (Das *Bild* enthält die Möglichkeit der Sachlage, die es darstellt" 5.4711, 2.173 (außerhalb), 2.1515 (Berührung der Wirklichkeit), 4.121 (Satz und Wirklichkeit), 4.125 e 4.3 (internal relations in the possible situations entail internal relations in the propositions). Moreover, under the title *Sprache und Welt* in p. 50 of the WWK, we have: „Ich möchte ein altes Gleichnis gebrauchen: „Lanterna magica“. Nicht der Tonstreifen begleitet den Film, sondern die Musik. Der Tonstreifen begleitet den *Bild*streifen. Die Musik begleitet den Film. Die Sprache begleitet die Welt.“

It is not inconsistent to have the technique of isomorphisms between structures and the thesis of the essential harmony between language and reality in the tractarian interpretation together. But it would be somehow redundant! The application of the isomorphism to the *Tractatus* assures, by definition, what the early Wittgenstein seemed to want: a structure (here the language) is sent to another (here the reality) in a 1 to 1 manner, i.e., injectively and surjectively, so that relations between the elements of one (objects) are preserved by the other elements (names). However, the question about how the world is mirrored by language, the basis of both interpretations (essential harmony and isomorphism) is a false question, since, as I hold here, strictly speaking, there is no ontological difference between language and world in the *Tractatus*.

It is a fact that the technique of mathematical isomorphisms aptly captures what Wittgenstein wanted by depicting the relationship between propositions and state of affairs, namely: (i.) naming at the elementary level of language cannot be ambiguous, i.e., it cannot be the case that we have one name referring to two objects of the state of affairs that makes it true. This is given by the functional aspect of an isomorphic mapping, i.e. each element of the image set can be connected to an element of the domain, (ii.) tractarian naming does not allow synonyms, i.e., in the elementary level of tractarian semantics there could not be something like an object being designated by two names, a requirement which is evident in the exclusion of identity in the tractarian notation (see 5.53's and 3.325). In the tractarian metaphysics of symbolism, to say " $x = y$ " is a nonsense and that "it is not the case that $x=y$ " is a triviality. This scenario should be understood through the search for a more perspicuous notation advocated by Wittgenstein that I have already presented earlier. Thus, in this perspective, having two names or two symbols would mean having two objects or two symbolized things. This aspect is given by an injective aspect of this isomorphic mapping: each object of the whole field can have only one element of the image set sent to it; (iii.) tractarian naming does not allow that an object in the state of affairs represented by an elementary proposition be without a name, i.e., all objects in a state of affairs have a name in the elementary level of figuration. The elementary proposition covers or surjects the state of affairs that make it true. In set-theoretical jargon, their names must map all the objects of the depicted state of affairs for the proposition to have its sense determined. This aspect is given by a

surjective isomorphic mapping: every element of the domain finds its counterpart in the image set, i.e., there is no element in the domain which doesn't have its image given by the function.

It is precisely in the case of the preservation of properties and relations between sets, given by definitions by a isomorphic mapping, where the problem of its relationship with the thesis of the essential harmony appears. Here, we have the issue about the surrogative or by-substitution reasoning proper of building models. From a model, one should be able to read off everything (or the relevant things) that occur within the complex represented by this model because the model's elements replace the elements of the represented complex. The relationship between the structural representation and what is represented must be such that we can see the later by the former. For this end, in the tractarian jargon, the two complexes must have the same logical form, the same range or horizon of articulation. Therefore, by the pictorial relation it should be possible to preserve the formal characteristics of the elements depicted in the elements of figuration. However, how is this done in the *Tractatus*? Its metaphysics work well to meet the demand of conservation between domains.

In the passage 5.4711 that succinctly shows much of the project of the *Tractatus*, it can be argued that there is a kind of transitivity between domains⁶¹. It is easy to find isomorphism in this picture, including the possibility of surrogative reasoning: if I understand a proposition as a structure and the state of affairs that makes it true as another, a situation which the tractarian *Bildkonzeption* clearly allows, the preservation of relations of one in another could come by definition. This works without the need to venture into the onerous tractarian metaphysics, i.e., without mentioning of the essence of language and the essence of the world, and a harmonious community between them. Put roughly, that which might be solved by the metaphysics contention in the *Tractatus*, and that leads to the negative diagnosis of the whole Philosophy, could be then replaced by the

⁶¹ Here, transitivity must be understood as an instance of *Übertragung*, as an extension or transmission, rather than in terms of the technical meaning of transitivity. For example, if we have a situation wherein $(p \Rightarrow q)$ and $(q \Rightarrow r)$, so we have $(p \Rightarrow r)$. However, this last meaning could also be possible: If I have the essence of a proposition, so I also do have the essence of the language (descriptive, for the *Tractatus*), and if I have the essence of language, I have the essence of the world. Consequently, if I have the essence of a proposition, I have the essence of the world. 5.4711: "*Das Wesen des Satzes angeben heißt das Wesen aller Beschreibung angeben, also das Wesen der Welt.*" By the way, the relation of identity – a background of the holistic approach that we are defending here – is always transitive.

contention of a mathematical technique that gives me everything that I wanted: non-ambiguity, non-synonymy, covering and preservation between domains.

I believe that E. Stenius is the father of this application of isomorphism that he introduced in the 1960s – precisely the decade in which the notion of isomorphism gained strength in mathematics and logic – to avoid exegetical and conceptual difficulties in relation to the *Tractatus*.

“Wittgenstein’s use of the notion of representation (Abbildung) and related concepts is not free from a certain amount of ambiguity, and I do not think it possible to grasp exactly what idea he connects with them. I shall therefore adopt the following method of analysis. First I shall define an exact concept of ‘representation’ called isomorphic representation. Then I shall interpret Wittgenstein’s statements about pictures with reference to this sort of depicting. In this way we obtain a model that satisfies many of Wittgenstein’s statements on the subject. This model can be used as a system of reference for the analysis of Wittgenstein’s application of the concept of a picture in his theory of language.” (Stenius, p. 91). my italics

Influential in German speaking countries, Stegmüller’s book about the main streams of the contemporary Philosophy, which was being extended in the direction of Wittgenstein’s Philosophy by the time of its translation into English in 1969, shows clearly the central role played by Stenius’ interpretation. As Stegmüller⁶² affirms in the preface to the English version of his book:

“In describing Wittgenstein’s earlier Philosophy, I was greatly assisted by Erik Stenius’s Wittgenstein’s *Tractatus*. This book seems to me to have definitively clarified

62 Due to the great influence of Wittgenstein on the anglophone countries, it was added to the English version of Stegmüller’s book a longer part about his Philosophy, which was not to be found in the German version. In this English version there are the tenets that influenced many interpreters in German speaking countries about a strong distinction between a first and a second Wittgenstein that made almost impossible to talk about a continuity or a natural development of some old ideas in new horizons or even about a same person that could have thought so different Philosophies. In Stegmüller work there is no mention of a so-called middle phase of Wittgenstein’s Philosophy: „Since the later Philosophy of Wittgenstein differs in essential respects from the earlier, the chapter has been divided into two parts: by Philosophy I is meant the Philosophy of the *Tractatus*, and by Philosophy II the later Philosophy contained chiefly in *Philosophical Investigations and Remarks on the Foundations of Mathematics*.” (id. ib. p.v) Still in this direction of a sharp distinction between the two Philosophies: „Wittgenstein’s position in Philosophy is doubly remarkable. For on thing, he developed two philosophies, the second of which cannot be regarded as a continuation of the first. For another, he came to Philosophy more by accident, so that both his thinking as well as his original terminology lay outside the philosophical tradition, and in particular outside the German philosophical tradition.” (id. ib. p.394) Moreover, when Stegmüller writes about the abandonment of the presuppositions of the *Tractatus*’ Philosophy in no way he talks about the *Color Exclusion Problem* and the role that the search for a perspicuous notation have played in this context: „We shall first try to isolate some components of the „negative“ portion of Wittgenstein’s later Philosophy, that is, of his critique of T. This critique includes three things chiefly: the rejection of the ontological basis of the T-Philosophy; abandonment of the ideal of exactness contained in his previous Philosophy; finally, the questioning of the very concept of philosophical analysis as such.” (ib. id. p.425). My criticism on Hilmy and Kienzler can be used here as well. It is hard to believe that the change of his thought has begun with a so general enterprise as the change of the philosophical method our analysis. This is rather a consequence that a cause of his Philosophy changes.

many of Wittgenstein's conceptions, particularly those related to his ontological foundation and to his concept of picture." (Stegmüller, 1969, p. vi)

The technical details here are less important for me than the presuppositions for its application, as the drastic separation between the facts of language and the facts of the world. We can also note some echos of this applications of isomorphism in the influential work of Max Black of 1964:

"We can derive the following simple formula for the form of an atomic fact: an atomic fact composed of the objects a, b, c, has the same logical form as one composed of the objects d, e, f, if and only if there is a one-one correlation between the first and second group such that the correlated objects are isomorphic. That is to say, atomic facts are isomorphic if and only if they are composed of the same number of mutually isomorphic elements. Hence, the logical forms of objects uniquely determine the logical forms of the atomic facts in which they can combine (...) (the language used by the mathematicians and logicians in this connection fluctuates: some use „isomorphic“ where I propose to use „homomorphic (...) For one thing, we have seen that homomorphy (similarity of form) rather than isomorphy (identity of form) is the best that can be expected in the general case.“ (Black, p.68-9).

Even nowadays we can notice developments in this application of mathematics in the philosophical domain in influential works, as in Hans Glock's Lexikon from 1996:

„Der Satz enthält diese Möglichkeit [Form der abgebildeten Tatsache] in einem wörtlichen Sinn. Er enthält nicht den Inhalt seines Sinnes, die Konfiguration der Gegenstände, die er abbildet, aber er enthält ihre Form, die Möglichkeit dieser Konfiguration, die durch den logischen Isomorphismus zwischen der Verbindung der Zeichen im Satz und der möglichen Verbindung (Konfiguration) der Dinge in der Sachlage garantiert ist. Darstellung ist möglich durch einen logischen Isomorphismus, eine Übereinstimmung in der Form zwischen dem, was darstellt und dem, was dargestellt wird.“ (Glock, entry "*Bildkonzeption*", p. 86)

„Die logische Form, die Sätzen und dem, was sie abbilden, müssen gemeinsam sein (Ausdrückbarkeit der Harmonie zwischen Denken und Wirklichkeit)“ (id., entry "Sagen und zeigen", p. 309)

Moreover, taking advantage of the general theme *Bildlichkeit*, as expected, in 2010, at the 33rd International Wittgenstein Symposium in Kirchberg am Wechsel, there were apologetical presentations about the use of isomorphism in the *Tractatus*. This attests to the continuing effect and absorption of Stenius' proposals of the '60s. Stenius still serves as a paradigm for contemporary interpreters of Wittgenstein to understand the projective relationship of *Bilder* in

the *Tractatus*. As an example, at this Symposium Włodzimierz Heflik's contribution used this notion of isomorphism to try to understand the relationship of mirroring between logic and world:

“Es ist zu bemerken, dass die Rede vom SpiegelBild die Frage nach dem Spiegel selbst nahelegt, in dem ein derartiges Bild vorkommen kann. Die Metapher des Spiegelbildes gibt uns zu verstehen, dass das Bild als getreues EbenBild des Abgebildeten zu betrachten ist. Es ist mithin ein Beispiel einer isomorphen Relation. Dieser Isomorphismus besteht darin, dass die Relationen zwischen Gegenständen dieser abgebildeten Tatsache bzw. des Sachverhaltes auf die Relationen zwischen Repräsentationen der Gegenstände übertragen werden“. (Włodzimierz Heflik, p.125)

Here we can already see some problems that will be more systematically presented below, for example, the terminological confusion between structure and forms in isomorphic mapping of facts in the *Tractatus* that have resulted in the conceptual confusion between modalities, i.e., between the possibility and the actuality of structures. It is interesting to note that it were not for the asymmetry in the *Tractatus* between the represented and the representation we would have another kind of modal problem. An actual complex cannot represent another actual complex as a condition for its meaningfulness. We cannot have *a priori* true propositions or representations. Although not perceptible, this seems to be a direct consequence when we demand that the relationship between representations is that of mirroring between structures. With the metaphor of the mirror we clearly have two actualities, so the modal symmetry makes sense here: in the same way as with a mirror, we do not have to know what represents what, or which complex represents the other.

Representations correspond symmetrically to their represented if and only if, we are in possession of their truth, which already means a step beyond the determination of the sense, or proper environment of the question about how propositions can represent reality. When we accept this question, we accept the forward moves on a logical ground for the constitution of a sense of our discourse that (logically) precedes the empirical ground of the determination of its truth value.

We have here for our disposal another example of misuse of isomorphism in the *Tractatus*. In his controversial contribution to the Proceedings of the Kirchberger Kongress, in 2010, Marco Carapezza, argued that: “The relationship

between fact and image is generally considered as governed by a form of isomorphism. Here I want to maintain that it is not a matter of isomorphism, but instead of homomorphism” (p.49). Firstly, there is here the mistake in translating the word *Bild* as image. As we have seen, this can lead us to misleading idealist interpretations. All images are *Bilder*, but not all *Bilder* are images. I believe that the author is willing to prepare the ground for the transport of isomorphic functions into the context of representation in the *Tractatus*, since those techniques use terminology relating to set theory, such as functions (in the sense of counter-domain) and images (in the sense of representations, *Bilder*). This transition attempt is explicit when he writes that: “if a certain configuration is an image of something, there exists a corresponding function that finds this correspondence.” (Carapezza, p.49).

Clearly, even though Wittgenstein stated that he partially inherited the concept of *Bild* from the mathematics, there is conceptual confusion here. And such confusion was apparent in conversations with the Vienna Circle:

“Diesen Begriff des Bildes habe ich von zwei Seiten geerbt: erstens von den gezeichneten Bild, zweitens von dem Bild des Mathematikers, das schon ein allgemeiner Begriff ist. Denn der Mathematiker spricht ja auch dort von Abbildung, wo der Maler diesen Ausdruck nicht verwenden würde. Das Wort „Bild“ hat etwa Gutes: Es hat mir und vielen andern geholfen, etwas klar zu machen, indem es auf etwas Gemeinsames hinweist und zeigt: Also darauf kommt es an! Wir haben dann das Gefühl: Aha! Jetzt verstehe ich: Satz und Bild sind also von der gleichen Art. (...) Als mir das Gemeinsame von Satz und Bild zum ersten Mal klar wurde, habe ich in immer neuen Wendungen darauf hingewiesen und den Satz mit einem lebenden Bild verglichen, ein andermal mit einem Modell, oder ich sagte: Der Satz stellt dar, er zeigt, wie es sich verhält usw.“ (WWK, p.184-5)

Carapezza, in his paper, unduly takes advantage of the conceptual ambiguity in relation to “image” to draw inappropriate conclusions. Even so, it is interesting to note that there is another incongruity in this comparison between tractarian representation and functional aspects of set theory. In particular, there is confusion about the direction of the relationship between the two. In the *Tractatus*: “A represents B” means that from “A” we can get to “B”. We can do this because we do not yet know and cannot know when we understand A if B is actually actualized in the world. In set theory, we have a reversal of this discourse about image: when A has a functional relation with B, we first mean that A is the domain from where we start and systematically generate elements or images in the

counter-domain. In this case B would be the image, in the mathematical sense, of A. In the natural sense of figuration of the *Tractatus*, if we want to call a complex an image, the complex A would be the image or the counter-domain, from where we read off B, the depicted domain, and not the inverse. This is not relevant, unless we are indeed dealing with isomorphism in the *Tractatus*, where it would then have to force artificially and wrongly, so to speak, the return relation of representation, i.e., if A is representing B, B will also be representing A.

Another manifestly misleading point is the attempt to somehow find this kind of relationship between projective proposition and the state of affairs already on the surface of language without a proper logical analysis of it and, therefore, without revealing the elementary propositions sustaining the sense of the molecular proposition. It makes no sense to look for either isomorphism or homomorphism in the way Carapezza tried to do without the complete analysis of the investigated proposition. He never mentions elementary propositions in this context:

“It seems to me that an important characteristic of the relationship of projection identified by Wittgenstein consists in the fact that from what is represented it is not possible to infer what was to be represented, if I do not exactly know the method of projection. And also, in this case an inverse function could not exist.” (CARAPEZZA, p. 50.)

Here's an interesting argument which has a correct conclusion and premise but is invalid from the point of view of relevance, because the premise and the conclusion have nothing to do with each other. Yes, the ordinary language serves as a disguise or distortion of the true language syntax, but this does not play any role in the refusal of an isomorphism in favor of a homomorphism, unless we are already looking at the surface of the language its projective relation with the world. And this idea becomes evident when Carapezza writes:

“In language, in particular, at every level of realization we are faced with different types of deformations and the relationship between the planes that those levels realize is never characterized by biuniqueness and isomorphism, but more often by non-biuniqueness.” (Carapezza, p.50)

Although the conclusion seems correct and the projective relation is functional, it does not allow the inverse function due to the interdiction of *a priori*

true propositions. However, I believe that the assumption of homomorphism also suffers from the same problems as the one of isomorphism: the anachronism and incongruity to the metaphysical spirit of *Tractatus*. This technique has a pragmatic and ad hoc spirit that is not to be adjustable, in many lines, to the *Tractatus*. This bet on technical refinement or adjustment to the application of the isomorphism in the *Tractatus* brings out the insistence on applying mathematical techniques or logic in philosophical areas in search for clarity, but without actually investigating the consequences of such meanings in the conceptual geography of the works. Paradoxically, the search for clarity eventually leads interpreters to conceptual confusions and obscurities. This makes the misunderstanding of the interpretation of a work explicit.

Another contemporary example of the use (or misuse) of this technique is found institutionalized in *The Blackwell Dictionary of Western Philosophy*. It is worrying that the first example of isomorphism in this dictionary is precisely the one promoted by interpreters of the *Tractatus*. One would expect that the dictionary examples should be more neutral for debate. This shows how unfortunately far the use of this isomorphism in the *Tractatus* has become canonized or firmly rooted - not only in the secondary literature about the *Tractatus*, but in the secondary literature on analytical Philosophy itself. Indeed, *The Blackwell Dictionary* defines isomorphism in the following way:

“Logic, metaphysics, Philosophy of language [from Greek isos, equal + morph, form or shape] The structural identity or one-to-one correspondence of properties between two propositions or two systems. In Wittgenstein’s *Tractatus*, a proposition is a picture that is isomorphic with a corresponding possible state of affairs. This is the core point in his picture theory. In its stronger version, it suggests that not only the names but also the significant relations between the names will stand in a relation of reference to the world. In its weaker version, it suggests that only relational facts will be symbolized by relational sentences, with no requirement that the significant relation in such a sentence will have reference to a relation in the world. It is sometimes argued that Wittgenstein’s thought develops from the stronger version to a weaker one. Carnap claims that if two sentences are logically equivalent, and have the same number of corresponding components, they are intentionally isomorphic. They not only have the same intention, but also are equivalent in analytical meaning. “Isomorphism, or that structural identity, is a relation between interpreted languages ... To say of two systems that they are isomorphic is to say that they have the same structure (logical form).” (entry isomorphism, Blackwell Dictionary of Western Philosophy, p. 362)

This definition for isomorphism includes technical errors for it states that a correspondence between two systems can be called isomorphism. This condition

is necessary but not sufficient; we also need the notion of preservation of relations or predicates between the components of these systems. There is also the fluctuation of the words without finer differentiations, for example, after all, are isomorphisms defined in terms of forms or structures? Is there a difference between these? If so, what is the difference? Is it then possible to have isomorphism between the form of one system and the structure of another?

As we have seen the assumption of isomorphism in the base of the tractarian *Bildkonzeption* is understandable and widely used in the secondary literature. However, the price for the application of this technique in the Philosophy of the *Tractatus* is high, I hold. We would have the *Übersehen* of tractarian metaphysics. Here I want to be more critical than propositive, for it is as if I were setting an agenda of problems to be solved in the case that someone really wants to argue that this technique can be systematically applied in the *Tractatus*. To do so, we would face the following three groups of problems:

I. Conceptual and technical problems⁶³:

A) the reversibility of bijection in the isomorphism. For example, in the *Tractatus*, if we have a situation wherein A represents B, it does not make sense that the complex B also represents the complex A, since we have already fixed that A is a complex which represents B. That is, in *Bildkonzeption* there would be no room for symmetry in the representation. In a function we always have a fixed starting set. It seems to me that Anscombe anticipated this problem but without the following argument:

63 All of this first group of arguments (a-d) against the presence of an isomorphism in the technical sense in the *Tractatus* deals directly or indirectly with the impossibility of having maps, models or *a priori* true propositions, as we explicitly have in 2.22-2.225: “Das *Bild* stellt dar, was es darstellt, unabhängig von seiner Wahr- oder Falschheit, durch die Form der *Abbildung*. Was das *Bild* darstellt, ist sein Sinn. In der Übereinstimmung oder Nichtübereinstimmung seines Sinnes mit der Wirklichkeit besteht seine Wahrheit oder Falschheit. Um zu erkennen, ob das *Bild* wahr oder falsch ist, müssen wir es mit der Wirklichkeit vergleichen. Aus dem *Bild* allein ist nicht zu erkennen, ob es wahr oder falsch ist. Ein *a priori* wahres *Bild* gibt es nicht.”. What is at stake here is the basic argument with which Wittgenstein essentially seems to try to solve problems. Sense and necessity must be different, and moreover, exclusive, things. To say something meaningful is to say something contingent. To say something necessarily means abandoning the ground of sense. Furthermore, to say there’s an isomorphic relation between two facts or between two actualized structures is unattractive to the *Tractatus*. With his *Bildkonzeption*, Wittgenstein tries to account for conditions for which a proposition has sense, an initial step, for it to be true (or false). The concern and commitment of the *Tractatus* prior to the determination of truth is with the establishment of the sense of propositions. Wittgenstein’s Philosophy is much more oriented in this way towards the possibility of something than towards its truth.

“The problem was constituted by the isomorphism's being two-way. If a figure *x* is isomorphic with a figure *y*, then equally *y* is isomorphic with *x*. So how does *x*'s isomorphism with *y* show that *x* is a picture of *y* any more than *y* is a picture of *x*?” (Ascombe, p. 395-407.)

B) The problem is rather a rejection of the possibility of *a priori* true propositions, than the lack of criteria to determine which is the fact that represents and which is the one that is represented. If there were this symmetry of the representation, we would have *a priori* true map. When we have a model we must not know whether it will find an ontological correlate that it is actual in the world, so we are not, so to say, allowed to simply "come back" from this to that one.

C) The idea of a isomorphism of names, as presented by Black, makes no sense, since we need complexity and, in the *Tractatus*, names are, by definition, simple.

D) We have a terminological trap in the context of a modal question. In the *Tractatus* we have form (i.e. combinatorial possibility between elements) being preserved (see 2.15); while in mathematics we have structures being preserved (i.e. the very articulation of the elements is already effective).

E) We cannot start with the remission of names to objects in the *Tractatus*, as we see in the presentations of projections of structures. There are no names or objects therein that are loose or without a complex in which they are inserted. Although at this level of the linguistic building we do not have a compositionism, we have a form of contextualism, because names and objects only appear in concatenations, articulated with other names and objects respectively in elementary propositions and states of affairs;

F)⁶⁴ If there is indeed an isomorphism, in principle, there may be many states of affairs that can be represented by a proposition. The interpretation of this would always be open to some extent. In the case of mappings by isomorphic structures, we can always find another that can also have the “formal conditions”

⁶⁴ This objection was presented by Joseph Zanetti during my presentation in the 34th Kirchberger Kongress, in 2011.

to represent or be represented by these structures. This fact seems to hold something interesting for the Philosophy of Mathematics: I can create a structure and study its characteristics and formal relations, not knowing if I will find, in fact, a correlate in the reality or even perhaps, several, in more distant and mysterious domains. When we have a model or a map we do not, in principle, know if the state of affairs that must be shown is, in fact, actualized in the world or even how many states of affairs are structurally isomorphic to it. In this sense, we may ask which state of affairs between many would be that one would make the proposition true. Should understanding a proposition in the *Tractatus* be something open? Can I possibly find other state of affairs related to this proposition? Clearly a proposition must be open in the sense that the state of things we project to understand it must be actualized in the world or not. However, I find it doubtful that a proposition in the *Tractatus* should be able to accept many or even infinite states of affairs isomorphic to it. Here we clearly have a problem with the numerical identity of what is being denoted with the names of the proposition and what is understood as the sense of the proposition. In principle, could all these states of affairs be reduced to a state of affairs precisely because they are formally identical? Just as there are no synonyms in elementary propositions or even equivalent elementary propositions, a formally equivalent state of affairs should not be able to exist if, that is, by being equivalent they have to be ultimately the same. Wittgenstein, in his middle period, seems to anticipate this criticism to this kind of purely formal approach to the projective relationship between *Elementarsätze* and *Sachverhalt* by focusing on the theme of naming at a meeting on the concept of "Alle" held on 25th December 1930 in Schlick's house:

“(...) Die Schwierigkeit, diesen Satz zu formulieren hängt zusammen mit der Namensgebung. Mit den Eigennamen ist es eine verfluchte Sache. Z.B. Ich wollte den Stuhl Jacob nennen. Wem habe ich eigentlich den Namen gegeben? Der Form oder dem Stuhl? Wenn es mehrere Tausende ganz gleich beschaffene Stühle gäbe, wie wüsste ich, welcher Jacob ist? Habe ich mit Jacob die Form des Stuhles benannt, dann kann ich sie nicht voneinander unterscheiden. Habe ich das gemeint, was ich durch Vorzeigen hervorheben kann, so wieder Schwierigkeit: Wenn zwei genau gleich beschaffene Stühle wieder auseinander gehen _ wie könnte ich dann wissen, welcher Jacob ist? Die Möglichkeit die Dinge mit Eigennamen zu belegen, setzt schon sehr kompliziert Erfahrung voraus. (Undurchdringlichkeit!)”. (WWK, p.51)

II. Draining the Metaphysics (robust, but central!):

A) By the technique of isomorphism, we could have a pragmatic simplicity that is no longer essential. Here there is a danger in the possibility of defining isomorphism for any object. (We assume the same risk when we represent the pictorial conception of the *Tractatus* with objects of our experience.) Simplicity in the *Tractatus* must be understood semantically, as determining the limits of discourse analysis. When we say logically simple names, we mean names that do not involve any kind of abbreviation or definitions. When we say logically simple objects we mean objects that no longer accept descriptions. We do not need this kind of simplicity to map isomorphically a structure into another. We would only need that in this context, the elements of the both context should be atomic, in the sense, that in this context, they cannot be break down into other. The restriction would be rather contextual and pragmatic than metaphysical or essential. We would no longer need eternal and indestructible objects, since any element (be it empirical, macro or microscopic, or abstract, like a number or a concept) could be taken as an object to be represented or as a representation of another;

B) we would not need an absolute logical space; we could have spaces of possibility competing or complementary, independent or organized in a system;

C) we would have the arbitrariness of internal relations, since the projection of elements of a complex onto elements of another complex would be determined by choices and/or inclinations or contextual or pragmatic aims;

D) we would have the "surrogativity" given by definitions. We could define which relationships or properties of a complex should be preserved in another complex, thus relying on the meta-language condemned in the *Tractatus* (cf. Swoyer, 1994);

F) there also remains the problem about what the ontological status of the arrows to be represented in the tractarian projection is. They cannot be representatives of a third abstract realm, outside of language or the world. They are made in the world. Understanding a picture with their pictorial relation, how

the figuration points to or touches the reality, is not to understand something as extra, needing to be built, or added to the figuration. Reading this ontologically, a fact already carries in itself all its representational possibilities. Understanding these possibilities in the fact adds nothing to it. A fact with its possibilities of figuration is not more than the fact itself. For example, a fact always shows, by its logical multiplicity, what it can depict. As Wittgenstein affirms in 3.13:

“Zum Satz gehört alles, was zur Projektion gehört; aber nicht das Projiziert. Also die Möglichkeit des Projizierten, aber nicht dieses selbst. Im Satz ist also sein Sinn noch nicht enthalten, wohl aber die Möglichkeit ihn auszudrücken. („Der Inhalt des Satzes“ heißt der Inhalt des sinnvollen Satzes.) Im Satz ist die Form seines Sinnes enthalten, aber nicht dessen Inhalt.“

It is clear here that the pictorial relation, which would be represented by the arrows between structures in the presentations of isomorphism, is not a third thing that connects two independent structures. In set theory we could try to represent a vision of another structure A mapping B as, say, $A \rightarrow B$, but from the passage 3.13 we can see that this representation of mapping in the *Tractatus* is more reliably represented as $(A \rightarrow) B$, because the represented complex does not belong to the complex which represents. This should be outside⁶⁵ of the complex which represents. The pictorial relations belong to the complex A. Thus, the reversal function rehearsed by the reading of isomorphism show that we are in another domain of representation, namely: $A (\leftarrow B)$ or $(B \rightarrow) A$, where pictorial relations belong to B. In this schema, the relation of representation in the *Tractatus* highlights the clearly asymmetric scope of the arrow to which complex the pictorial relations belong. Strictly speaking, a better representation of the pictorial relation of a fact in the *Tractatus* would be something like $[(A \rightarrow) \dots]$. That is, the complex already actualized carries with itself its possible projective relations with one or more complexes although we do not know which ones they are or if they are actualized in the world. The three dots or a lacuna should represent then this uncertainty about the neutralization of the depicted.

III. *Übersehen* of the Ethics and of the tractarian Holism:

⁶⁵ It is important to emphasize here that this outside is relative to the complex that represents, not in respect to the entire world as that notion would represent a contradiction in our holistic interpretation proposed here. A proposition is a fact within the world of facts that may represent other facts, obviously out of these facts that represent, but not absolutely out of this world.

A) Holism: „Bilder (Sätze) sind Tatsachen“ (2.141). „Die Welt zerfällt in Tatsachen“ (1.2). In the *Tractatus* there is no ontological division between language and world. According to 4.014, “sie sind alle in gewissem Sinn Eins”. And according to 5.556 and 5.61, we cannot say what occurs in the world through logic. This interpretation makes the understanding of its Ethics more natural: there are no hierarchies or divisions in the world. The linguistic models are in the world, they belong to the domain of facts of the world. They make up the world. The facts are always potential maps or models, or propositions. In this interpretation there would be no world but a way of speaking ontologically about facts. There would be no language but a way of speaking linguistically about facts. I only have facts, each with the same value and same order. It seems to make no sense to ask what the relation of a thing with itself would be, because identity is not a relation between things which are numerically different, but a peculiar relation of a thing with itself. To say articulation is to say logic, without having to think directly in an ontological or linguistic structure. Any possibility of articulation is always logical, regardless of being ontological or linguistic. A logical space defines a horizon of possibilities, a network of possibilities, exclusions, implications, combinations, or articulations between things or individuals, whether they are ontological or linguistic;

B) Normativity: the loss of the entire paradigm for language, that is, it must be essentially descriptive and central to the *Tractatus*, but foreign to a mathematical technique;

C) a negative attitude to traditional Philosophy is also drained, for it looks arbitrary and artificial to approach the isomorphism technique in a context where one requires an unassailable solution and all the definitive problems of Philosophy.

The issue here may be exposed by using a common analogy in the world of proofs of logic or mathematics. We have a problem for how can we see through the proposition to the fact that makes it true. It is sufficient to understand the proposition as a map of this part of reality, because to understand that is to

understand the fact that makes it true. What is there in the *Tractatus* that fulfills this role? A whole metaphysical structure of essentialities, simplicities and completeness. Let's imagine a scenario wherein a cannon is called as an instrument or tool for killing a fly. In this case, the fly is not so small, but the cannon is very powerful. I can change the tractarian metaphysical cannon by a regular technique of isomorphisms but, by doing so, I lose that which makes the *Tractatus*, the *Tractatus*. The isomorphism applied to the *Tractatus* sometimes seems to be a demagogic argument because it applies apparently trivially to its *Bildkonzeption*, as we have shown to the case of, for example, non-synonymy and non-ambiguity. It always seems to suit the conditions of figuration expressed there. This makes it more elegant by taking away its most costly part, the metaphysics responsible for determining the propositional sense. I therefore believe that the recurrent and sometimes consensual suggestion of isomorphism in naming made in the secondary literature must continue to be approached as only a suggestion or instructive image. It is so useful (and risky) as thinking of the *Bildkonzeption* with everyday empirical elements. Associating isomorphism to the *Tractatus* makes Wittgenstein's metaphysics irrelevant, thereby making the *Tractatus* another book, not the *Tractatus*.