

Susan Langer and the Woeful World of Facts

ABSTRACT

Susanne Langer is mainly known as the American philosopher who, starting from her famous *Philosophy in a New Key*, 1942, worked in aesthetics and famously saw art as the product of the human mind's most important, distinctive and remarkable ability, i.e. the ability to symbolise. But Langer's later consideration of the connection between art and symbol is propagated by an early interest in the logic of *symbols* themselves. This rather neglected early part of Langer's thought and her early interests and lines of reasoning, which she somehow abandoned later on to dedicate herself exclusively to the study of art, are the topic of this paper.

Every advance in logic is a gain in metaphysical insight
(Langer, *The practice of Philosophy*, 101)

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Susanne Langer is mainly known as the American philosopher who, starting from her famous *Philosophy in a New Key*, 1942, worked in aesthetics and famously saw art as the product of the human mind's most important, distinctive and remarkable ability, i.e. the ability to symbolise, and took artists to use a peculiar, non-discursive, incommunicable through language, way of symbolising, in order to express what they know about the human mind and its feelings. But, as Lang maintained, Langer's later consideration of the connection between art and symbol is "propagated by an early interest in the symbol alone" (1962, 349). This rather neglected early part of Langer's thought and her early interests and lines of reasoning, which she somehow abandoned later on to dedicate herself exclusively to the study of art, will be the topic of this paper.

Already at the beginning of the development of her thoughts, Langer is an eclectic reader and thinker. As an undergraduate at Radcliffe College, which offered to women the equivalent of a Harvard degree, she studied under the supervision of Sheffer, who introduced her to logic and in particular to the work of Royce, which she took into great consideration (1927, 123; 1937a, 39). About Sheffer, she said:

Sheffer's chief contribution to logic, and (over his protests) to philosophy, was his demonstration of the influence which notation exercises on the appearance of relational structures, and therewith, of course, on the forms in which problems present themselves. This "notational relativity," as he called it (1964, 307).¹

As we will see, this notion of *notational relativity* will be central for the young Langer in reaching her conclusions.

After her graduation in 1924, she started her Ph.D at Radcliffe in 1925, the year in which Whitehead moved to Harvard and he became her supervisor. In 1925, while Langer was his student, Whitehead gave some lectures at Harvard that then led to his famous *Science and the Modern World*. In the lectures Whitehead advanced his famous thesis that

nature is a structure of evolving processes. The reality is the process ... The realities of nature are the prehensions in nature, that is to say, the events in nature. (1948, 74)

Langer often stated that Whitehead's "brilliant" (Langer & Gadol 1950, 120) notion of *event* and his consequent *process philosophy* have been his most important substantive contributions to philosophy, which, as we will see, she explicitly inherited.ⁱⁱ During her Ph.D., she studied Russell, Wittgenstein and the American Pragmatists, while attending Whitehead's and Sheffer's lectures on logic and metaphysics. In 1926 she defended her dissertation - *A Logical Analysis of Meaning* – and she also started publishing some original papers in *Mind* and *The Journal of Philosophy* on the logical paradoxes. In the 1930s she was one of the founders, together with Lewis, Church and Quine, of the *Association for Symbolic Logic* and she was one of the editors of the association's publication, i.e. the *Journal of Symbolic Logic*, where she also contributes from 1936 to 1939 many reviews of works by Russell, Tarski, Fitch and Bocheński among others. In 1937 she moreover published her own *Introduction to Symbolic Logic*.

But the young Langer was not merely a talented logician. She was in fact already influenced by the neo-Kantian tradition and already interested in the issues that tradition was trying to solve. In an interview with the *New Yorker* in 1967 she said that she read Kant's *Critique Of Pure Reason* in her early teens (Kuhlman 2002, 282) and in 1962 she maintained that she started philosophy under the influence of the Kantian lines of thought, with its "new dominant notion, the transcendental sources of experience" (1962, 54). Her first published papers in the early 1920s are reviews in the *Journal of Philosophy* of works by Erdmann (1924a), Cohn (1924b), and of a *Festschrift* for Natorp (1924c). In this last review, she praises neo-Kantianism in general for its ability to "embrace so many phases of this disjointed world in its unifying perspective" (1924c, 697). Moreover, she in particular praises, for its clarity and originality, a paper by Cassirer, who will always be one of her main explicit inspirations. In 1946 Langer translated in English a fragment of Cassirer's *Die Philosophic der Symbolischen Formen* and in her translator's introduction she states that Cassirer's main insight has been that

[h]uman intelligence begins with conception, the prime mental activity; the process of conception always culminates in symbolic expression ... the study of symbolic forms offers a key to the forms of human conception. The genesis of symbolic forms - verbal, religious, artistic, mathematical, or whatever modes of expression there be - is the odyssey of the mind. (1946, ix-x)

This insight shaped Langer's reflections right from the start of her career and, as we will see, this rich notion of *symbol* will be relevant also in her early reflections.ⁱⁱⁱ As she in fact retrospectively stated herself

It was in reflecting on the nature of art that I came on a conception of the symbol relation quite distinct from the one I had formed in connection with all my earlier studies, which had centered around symbolic logic. This new view of symbolization and meaning stemmed from the Kantian analysis of experience, and had been highly developed in Cassirer. (1962, 58)

In fact, as early as in 1930, she refers to Cassirer when it comes to defining *symbols* (1930a, 158-64) and in 1927 she is already urging that we should not confine ourselves to propositional forms and symbols (1927, 123).

While Cassirer, Whitehead and Sheffer are her main explicit inspirations in her young reflections, she also referred to authors so diverse as Meinong, Husserl, Dewey, Schiller, Peirce, Broad (1930a, 21), Lady Welby (ibid., 106), James (ibid., 79) Freud (ibid., 149), Einstein, Whitehead, Weyl and Reichenbach (1930c, 611), Spinoza and Ramsey (1933, 179).

See also Innis 2009, 8-9; Nelson 1994, 290). Starting from this extremely heterogeneous background, in the 1920s and 1930s Langer worked in logic and on those “philosophical problems which arise directly from logical considerations” (1937a, 334). We will see those “philosophical problems” in §2. Before that, we need first to consider, in the next section, what she thinks the relevant “logical considerations” are.

1. LANGER’S IDEA OF LOGIC

In 1926, in her first two original articles, Langer deals primarily with logical paradoxes, and in particular with the following paradox:

one problem seems ... to reduce even “scientific philosophers,” i.e., logicians, to a sort of mysticism: that is the problem of relating the abstract form of anything to its specific content ... This relation of form and content raises an interesting and difficult problem. At first sight it appears obvious that there can be such a relation; but if there is, then it can be expressed symbolically, as $R(f,c)$; and thereby we have transformed our empirical content into a term of the formal structure, i.e., we have formalized it, and are no longer dealing with the non-logical content. Thus it seems there can be no such thing as the relation between the form of a thing and the content of that form, since this relation would entail a true paradox (1926b, 436),

which she takes to be “the basis of Mr. Wittgenstein’s mysticism” (1926a, 225-6), given that for Wittgenstein what is common to a form and its content can only be *shown*, not put into words. Langer maintains that paradoxes in general do not really threaten logic:

in truth, there is no metaphysical virtue in paradox. The laws of logic have not produced it; the world does not contain it. The presence of a true paradox in any proposition is essentially an index of non-significance, and therefore it is a symptom of some philosopher’s muddle-mindedness, not an indictment of Reality or of logic (1926b, 435. See also 1933, 181);

Paradoxes, antinomies and other sophisms have been with us since the beginning of philosophy, because no one could discover the confusion of concepts which engendered them. To Mr. Russell belongs the credit for this discovery (1926a, 222)

Thus Langer thinks that paradoxes should be dissolved by finding *a confusion* and in the case of the paradox of form and content she thinks (with Russell, in Wittgenstein & Russell 1922, xxiii-v, which she refers to) that the confusion of concepts is in the thesis that there is *the form* of something. For, as she says she learnt from Sheffer (1921; 1927) and Whitehead (1919, 59-60), there is no

such a thing as *the form* of anything. A logical form is always relative to a system (1926b, 437. See also 1930a, 135-8).

As an example of different forms which might help us in understanding what she had in mind, in her articles in 1920s and 1930s and in her first book, *The Practice of Philosophy*, 1930, Langer gives the following: “If now we would describe the location of any place, we must use one geometry or the other” (1930a, 137. See also 1927, 124). Thus, for example, different geometries are different systems within which we describe the location of any place. The location so described is then described via a form which is relative, that is relative to the

geometry employed in the description. Other examples concern metaphysics: we can employ “notions such as “space-time events” or ... Leibnizian “monads”” (1930a, 135). Similarly, Whitehead’s different ways of breaking up the subject matter of experience – “(i) events, (ii) percipient objects, (iii) sense-objects, (iv) perceptual objects, (v) scientific objects” (Whitehead 1919, 60) – are for Langer examples of different systems of forms. Another obvious example of form-relativity for Langer is relativity to language: when we put a thought into words, we can use different languages and the sentences of the different languages will have different forms (1933, 182). Thus, Langer urges, we can analyse nature in terms of events or in terms of sense-objects and each analysis is relative to the kind of *concepts* (1930a, 131) we have chosen to employ, to the perspective we are seeing nature from. We can choose to use sentences that employ the concept of event. These sentences have their forms, but those forms should not be taken as *the* only possible forms, since we could use sentences that employ instead the concept of sense-objects and these sentences would have different forms. Thus each form is relative to the system to which it belongs and each system is one of the possible ways of analysis. In 1933 Langer stresses this point even more explicitly:

the types of relationship which are exemplified in a proposition depend upon a certain way in which the subject-matter is construed. Constituents and relations alike depend upon a particular logical formulation of a system, and this initial conception, the primitive notions, form the “logical language.” There are types of logical language, which yield various types of system ... all types of relation appear merely as special, more or less arbitrary formulations. Thus in the last count no structure is absolute, no relation peculiar to the material in hand, no analysis of fact the only true one. (1933, 182)

Each different form exhibits only some aspects of what it is a symbol of, so that each form is necessarily “selective” (1930a, 142). Influenced by the Pragmatists, Langer holds that in different circumstances different forms will become relevant, depending on of the “purpose in hand” (ibid., 141. See also 1933, 183), while maintaining, in a Kantian vein, that “this does not imply that the categorical element, or structure, is a subjective ingredient; forms are found in experience, not added to it” (1930a, 143). Since it will be the purpose that will make one particular form relevant, as such all forms are on a par, no one is privileged, there is nothing like *the form*.

She then considers whether we can take *the form* to be “the class of all possible forms under which the object in question can be conceived” (1926b, 437) and maintains that this form as the class of all possible forms shows as well a *confusion of concepts*. Langer relies here on Russell’s notion of *illegitimate totalities* and his *vicious circle principle* i.e.^{iv}

By saying that a set has “no total,” we mean, primarily, that no significant statement can be made about “all its members.”

The principle which enables us to avoid illegitimate totalities may be stated as follows: “Whatever involves all of a collection must not be one of the collection”; or, conversely: “If, provided a certain collection had a total, it would have members only definable in terms of that total, then the said collection has no total.” (Whitehead & Russell 1910, 39-40),

and suggests that such a class of forms proves upon inspection to be just one more illegitimate totality. She is not explicit on why such a class is to be considered illegitimate,

but she says that the various forms are “radically diverse” (1926b, 437), “incompatible, actually are incommensurable” (1930a, 138), so that

[t]here is no “Interlingua” which is an *abstraction* from languages; we can use only one language on each occasion, and we must use just one. (1926b, 437-8. See also 1933, 182)

This suggests that the totality of forms is illegitimate because there are many forms also for this alleged totality, and so such a totality is a totality only relatively to the language in which we are defining it. As a consequence, the totality is *only definable in terms of that total*, and then is to be ruled out according to Russell’s principle.^v Langer’s conclusion is then that if there were *the form* of something, then we would have a paradox concerning the relation between such a form and its content, and we would be led to mysticism about such relation. But the notion of *the form* is the product of some philosopher’s *muddle-mindedness*, it “exhibits no true paradox, and therefore does not necessarily invite our mystical contemplation” (1926b, 438).

From the alleged paradox we can learn, according to Langer, also what logic should be really taken to be about. Following Royce, she took *logic* to be the study of patterns and forms (1927, 123; 1930a, 83), “the tracing of types and relations among abstracted forms” (1937, 39), such that something might become a symbol of something else. Propositional logic and language are, as we just saw, some forms among many, and therefore logic, as the study of forms, should go beyond them, and its topic should be much wider:

anything may be said to have form that follows a pattern of any sort, exhibits order, internal connection ... and the bridge that connects all the various meanings of form –from geometric form to the form of ritual or etiquette – this is the notion of *structure*. The logical form of a thing is the way that thing is *constructed*, the way it is put together (1937a, 23-4).^{vi}

Since anything may be said to have form, it is unjustified to limit logic to considerations on propositional forms. Moreover, such a wider ranging logic solves the paradox of form and content and more generally “promises to save some important logical relations from their present metaphysical limbo” (1927, 123). Thus according to Langer, logic is not merely a tool for philosophy, although a powerful one, but also may “lead us naturally to philosophical topics, as indeed it will – to problems of epistemology, metaphysics, and even ethics. Logic applies to everything in the world” (1937a, 41). She in fact urged that she learnt from Whitehead that logic influences philosophy (1930b, 362).^{vii} For Langer metaphysics is

a rational science. It proceeds from complicated general concepts to the discovery of their implications, it exhibits their meanings ... Metaphysics makes explicit all that a concept such as for instance “the World” or “Life” contains; it seeks to discover the *meaning* (1930a, 34-6).

Since moreover “meaning is expression, which depends upon order ... forms ... patterns” (ibid., 101-2), being logic the study of forms, then “every advance in logic is a gain in metaphysical insight” (ibid., 101).

But what kind of *important logical relations* can this richer logic *save from their present metaphysical limbo*, i.e. what kind of *philosophical topics* will this logic lead us to, and how? Among the “philosophical problems which arise directly from logical considerations” (1937a, 334) is for Langer “the relativity of language, logical patterns, and

“facts”” (ibid., 334) and for a decade, from 1926 to 1937, she worked on those issues or, as she also calls it, on “the woeful world of facts” (1933, 181). In the next section we will see what she thought the problem was, what her solutions are, and the reasons she adduces in their support.

2. THE WOEFUL WORLD OF FACTS

In her *Facts: the logical perspectives of the world*, 1933, where she mainly deals with the woeful world of facts, Langer’s starting point is the following: take a true sentence such as “Mont Blanc is more than 4,000 meters high”. Langer asks: if

(A) True sentences express facts

and

(B) Facts are composed of objects and are the fundamental ingredients of the world,

does not

(C) Real objects, not concepts, are expressed in propositions

“inevitably follow” (1933, 185)? Of course it does. Langer then quickly urges that (A) is to be taken as true, by simply remarking that if a sentence is true, it should be faithful to reality and then express a fact. Still, she rejects the conclusion (C), since she maintains that there are *logical reasons* to reject (B). She has two logical arguments to the conclusion that (B) is false. Before considering what rejecting (B) leads to, let us see each argument.

Langer’s first, more developed argument, is composed of the following three steps:

(RejB1) Langer holds that “an excellent account of the logical prerequisites for meaning is given by Ludwig Wittgenstein” (1930a, 118. See also 1927, 124; 1933, 183) and together with him^{viii} and, as she says, with Whitehead as well (1930a, 108), she maintains that true sentences are *pictures of facts* (ibid., 141; 1933, 186).^{ix} What needs to hold in order for a sentence to be a picture of a fact? Also in answering this question, Langer is Wittgenstenian. She holds that sentences have *forms*, and in order to give an account of the sort of form that belongs to language, she holds that she “cannot do better than to quote Russell’s admirably lucid exposition” (ibid., 91) and often quotes (ibid., 91-2; 1937a, 32-3) the following passage from *Logic and the Essence Of Philosophy*:

In every proposition and in every inference there is, besides the particular subject-matter concerned, a certain *form*, a way in which the constituents of the proposition or inference are put together ... If I say a number of things about Socrates--that he was an Athenian, that he married Xantippe, that he drank the hemlock--there is a common constituent, namely Socrates, in all the propositions I enunciate, but they have diverse forms. If, on the other hand, I take any one of these propositions and replace its constituents, one at a time, by other constituents, the form remains constant, but no constituent remains. Take (say) the series of propositions, “Socrates drank the hemlock,” “Coleridge drank the hemlock,” “Coleridge drank opium,” “Coleridge ate opium.” The form remains unchanged throughout this series, but all the constituents are altered. Thus form is

not another constituent, but is the way the constituents are put together. It is forms, in this sense, that are the proper object of philosophical logic. (1914, 34)

Thus the form Langer is interested in here is what we would call the *logical form*^x and, again together with Wittgenstein, she also endorses the claim that as a picture of a fact, a sentence should share with the fact it is the picture of its *logical form*, i.e. should be *analogous*, i.e. have the same *structure* (1930a, 87; 115). She reports a large number of the *Tractatus*'s sentences and, among others, the following, for example, are all mentioned (ibid., 118-21):

2.1 We make to ourselves pictures of facts.

2.161 In the picture and the pictured there must be something identical in order that the one can be a picture of the other at all.

2.17 What the picture must have in common with reality in order to be able to represent it after its manner—rightly or falsely—is its form of representation.

2.2 The picture has the logical form of representation in common with what it pictures.

(RejB2) Langer's second point does not come from Wittgenstein, but from Sheffer and Whitehead, and is the thesis we already saw that form is not an absolute notion, since a logical form is always relative to a system and is always just one among many.

(RejB3) Langer says:

has the object only one pattern? This question is of the utmost philosophical importance; its answer entails a whole metaphysics of truth and of reality (1930a, 134).

It should now be clear why she thinks that the question is of the *utmost philosophical importance*. For a logical form is always relative to a system and is always just one among many, as in accordance with **(RejB2)**, so that the question should be answered in the negative. But then since facts and sentences should share the form, as in accordance with **(RejB1)**, then, contrary to

(B) Facts are composed of objects and are the fundamental ingredients of the world,

facts are composed not of objects, but of objects as already interpreted relatively to one among many systems of interpretation: "there is no logical formulation which renders *the* form of any reality" (1933, 182) "of a real thing, or of an event" (1930a, 135). Langer concludes quite explicitly as follows:

I think Mr. Wittgenstein's analysis of meaning, expressed in the words: "We make ourselves pictures of facts," etc., is probably correct. But it is only with reference to what he himself would call a "projection" that we could say, "The world is everything that is the case," for only with such reference can there be any "case." (1933, 187)

She moreover disagrees explicitly with Russell (1933, 179; 184), who famously took true sentences to express facts, which are made of pieces of reality.

Langer's second, sketchier, argument to the conclusion that

(B) Facts are composed of objects and are the fundamental ingredients of the world,

is false, goes instead as follows.

(RejB4) Langer starts by stressing that, if the world were composed of facts, as in accordance with **(B)**, then it would ultimately be composed of atomic facts, i.e. those for which “[t]here is no form over and above the particular way the objects hang together, no universal factor which combines the particular objects” (1933, 180, f. 5). She traces this thesis back to Wittgenstein and she quotes the *Tractatus*’s

2.01 An atomic fact is a combination of objects (entities, things).

(RejB5) But then, she holds, since a sentence and the fact it expresses should share the form, as in accordance with **(RejB1)**, a proposition, if it were to mirror an atomic fact, ought to do this by combining the names of objects in a way analogous to the way the objects themselves are combined in the fact, “[t]hat is, if the fact is atomic, the proposition should be entirely singular. All its constituents should be names” (1933, 180).

(RejB6) But, she observes, sentences are not simple collections of names, since in a sentence there should be a predicative element, which is not a name of an object: “the factors of the proposition do not all denote particulars” (ibid., 181. See also 1927, 121-2).

(RejB7) Then, she concludes, we should reject the first step in the argument, i.e.

(B) Facts are composed of objects and are the fundamental ingredients of the world,

and therefore deny that facts are composed of pieces of reality.

Langer’s second argument to the conclusion that facts are not composed of objects, contrary to **(B)**, is less general than the first, because it reaches its conclusion by relying on the assumption, in **(RejB4)**, that atomic facts are only composed of objects. While this might have been a thesis Wittgenstein maintained, it is clear that it could be easily rejected. One could in fact hold that atomic facts are surely composed of objects, but also of properties and relations. Thus Langer’s second argument is easy to reject. What about the first argument? Langer seems absolutely right that in different logical systems or in general in different languages, the same subject-matter might be rendered in different ways, as in accordance with her step **(RejB2)**. The only way to reject this argument would be to deny the first step, **(RejB1)**, according to which a sentence and the fact it is the picture of should share the same form. Thus what the argument really shows us is that if we hold on to the Wittgensteinian thesis that sentences express facts because they share the logical form of those facts, then, differently from what she took Wittgenstein to hold, it becomes difficult to maintain that facts are composed of objects.

Because she herself does not reject **(RejB1)**, she then suggests that sentences express something remarkably similar to Fregean senses.^{x1} Famously, Frege, held the following about senses:

The referent of a proper name is the object itself which we designate by its means; the conception, which we thereby have, is wholly subjective; in between lies the sense, which is indeed no longer subjective like the conception, but is yet not the object itself. (1892/1948, 213)

Langer similarly remarks that she is speaking of *concepts* and not *ideas* “in order to avoid confusion with psychological elements” (1930a, 37. See also 1927, 121) and when it comes to defining meaning she states:

The interpretant is a third term in the total meaning relation – the subject (not necessarily a person) *for which* the symbol means its object ... all meaning relations are triadic ... But it throws into sharp relief the psychological factors as against the objectively linguistic ones; it allows us to study the possibilities of meaning apart from conscious appreciation, and to understand on the other hand why it is ever correct, and in what limits it is possible, to distinguish between “my meaning” and some other meaning of a symbol. (1930a, 122-3)

Moreover, Langer stresses that taking facts to be not composed of objects does not make them any less “objective” (1930a, 150). In a letter to Frege that Langer could not have seen, Russell urged that “in spite of all its snowfields Mont Blanc itself is a component part of what is actually asserted in the proposition ‘Mont Blanc is more than 4,000 meters high’” (1980, 169). For if we instead follow Frege and hold that “Mont Blanc” contribute a sense, “we get the conclusion that we know nothing at all about Mont Blanc” (ibid). Although Russell is very sketchy here, using a current terminology, the idea might be put as follows. Sentences express propositions and propositions are the objects of our propositional attitudes, such as knowledge and belief. If what sentences express is always a mode of presenting either Mount Blanc or another piece of reality, then all we can know is always a mode of presenting reality, and never reality itself. In fact, this is exactly Langer’s conclusion: “there is no such thing as pure experience ... All knowledge is interpretation” (1930a, 135; 149. See also 1926b, 436; 1933, 183). To a Russellian, this would clearly be unacceptable.

Moreover, there seem to be further quite contentious points in Langer’s proposal. If facts are interpretations of reality, what is this reality that we have already interpreted when we have a fact? In 1926 she holds that it is “Kant’s Thing-in-itself” (1926b, 438, f. 7), and adds that “it can not really be related to the phenomenon because all the categories of form and relation are foreign to it. That is why many philosophers have condemned it as an unprofitable notion” (ibid.). In 1933, she instead avoids any reference to Kant’s Thing-in-itself and briefly introduces the notion of *event* she inherits from Whitehead and says that a fact is “a *perspective of an event*” (1933, 185). There is a tension between Kant’s Thing-in-itself and events that, differently from what is the case with the Thing-in-itself, seem to fall indeed under categories since, as she herself says, “events are past, present or future” (ibid., 186). Her introduction of events as the things facts are perspectives of is not only in tension with her remarks on Kant’s *noumenon*, but also with her other remarks on events. As we saw, she took “notions such as “space-time events” (1930a, 135) and Whitehead’s events to be one among many different “form systems” (1926b, 437). Thus events are concepts, and concepts stay with facts and interpretations, not with what these facts are perspectives of. Thus Langer’s account might be very unsatisfactory for somebody who is one of those many philosophers who find Kant’s notion *unprofitable*, because no alternative has been really provided.

Another lacuna in Langer’s account concerns false sentences. True sentences express facts. But what about false ones? In 1930, while quoting the *Tractatus*’s sentence

2.17 What the picture must have in common with reality in order to be able to represent it after its manner—rightly or falsely—is its form of representation,

she adds the following footnote: “We cannot really speak of a false picture. If the analogy does not hold there is no logical picture. But Mr. Wittgenstein repeatedly uses the term” (1930a, 119). Thus false sentences are not false pictures of facts. What do they express, then? She only tangentially tackles the issue, by saying:

Propositions do usually refer to matters of fact, but not necessarily so ... This may be the structure of reality, as in assertions of fact, or of an imagined world as in the case of “poetic truth,” or of carefully constructed beliefs as in hypothesis ... when I say “Hamlet loved Ophelia,” the symbol refers to a structure beyond the mere conceptual counterpart of the words; it refers to a structure which exists in a definite consistent order, and this order is Shakespeare’s *Hamlet* (1927, 127-8).

While the intuition might be transparent to us, Langer does not really develop further these notions of *imagined world*, *constructed beliefs*, *thinkable situations* and *definite consistent order*. In his lectures in 1917-18 leading to *Philosophy of Logical Atomism* Russell famously urged:

it does not seem to me very plausible to say that in addition to facts there are also these curious shadowy things going about such as “That today is Wednesday” when in fact it is Tuesday. I cannot believe they go about the real world. It is more than one can manage to believe, and I do think no person with a vivid sense of reality can imagine it. (1918, 55)

On the other hand, he recognised that a sentence ascribing a false belief seems to introduce these shadowy things: if John believe that Mont Blanc is a rabbit, there seems to be something, i.e. that Mont Blanc is a rabbit, that John believes. He then famously suggested that

It is not accurate to say “I believe the proposition p” and regard the occurrence as a twofold relation between me and p... the belief does not really contain a proposition as a constituent but only contains the constituents of the proposition as constituents. (ibid., 56-7)

It is hard to believe that Langer was unaware of this suggestion that could lead to an account of falsities,^{xiii} but she disappointingly does not even mention it, or any other proposal concerning false sentences, showing that falsity was probably not one of her main concerns. Thus falsity is another topic Langer does not develop as much as one might want, and possibly shows some weakness in her account.

But Langer thinks that her account has a strong point in its favour. For what about, for example, true negative sentences such as “Mount Blanc is not a rabbit” or general sentences and modal sentences? If, with Langer, we take facts to be interpretations of reality, then there is no problem because negation, generality, modality, etc. belong to interpretation, not to reality:

There are general and particular, positive and negative facts ... on the other hand ... there are no general and no negative events ... Since general concepts may fit reality, there are general facts - facts which refer to more than one event; and since concepts may be highly selective, there may be many propositions about, hence many facts referring to, any single event, even within one logical system (1933, 185-6).

But if we want to maintain both that sentences and facts share a form, and

(B) Facts are composed of objects and are the fundamental ingredients of the world,

negative, modal and general sentence seem instead to introduce into reality negative things, objects or properties, general properties, modal facts. But is reality really made of negative things, of not-being-a-rabbit, for example, or of a modal fact? Moreover, Langer urges, other problems arise:

logicians have been so deeply puzzled over the question: Do two equivalent propositions express the same fact, or do they not? Does “Socrates was the husband of Xantippe” assert the same fact as “Xantippe was the wife of Socrates?” If they express the same fact, i.e., have the same content, wherein do they differ? The principal relation in such a proposition may be converted, the whole proposition thus replaced by another, *one fact substituted for another*, yet the reference to “reality” remain the same. (1933, 186-7. See also 1927, 127)

Put differently, if we hold both that sentences and facts share a form and **(B)**, then sentences that differ in structure should be taken to express two different pieces of reality. But at the same time we might really be unable to find anything, in reality, to distinguish them. Take “Mont Blanc has white snowfields” and “White is the colour of Mont Blanc’s snowfields”. These sentences clearly have different logical forms, and then should express two different pieces of reality. But then there should be something in reality to distinguish them, and it is indeed hard to understand what in reality might play this role. But if instead one follows Langer, then equivalent sentences do not create any problem: they are simply different interpretations, different perspectives, i.e. facts, on the same piece of reality.

Now surely Langer is right that neither negative, general, modal, etc. sentences, nor what she calls *equivalent sentences* create an issue for her. But is it true that these are problems for a defender of both the thesis that sentences share a form with the facts they express and **(B)**? Although they are indeed *prima facie* problematic, many solutions have been suggested, already before Langer’s papers, and in works that she refers to. Famously, for example, in the *Tractatus* Wittgenstein maintained

4.0621 But it is important that the signs ‘p’ and ‘Pp’ can say the same thing. For it shows that nothing in reality corresponds to the sign ‘P’. The occurrence of negation in a proposition is not enough to characterize its sense ($PPp = p$). The propositions ‘p’ and ‘Pp’ have opposite sense, but there corresponds to them one and the same reality.

But although Langer, as we saw, refers to the *Tractatus* frequently, she does not consider the relevant propositions (2.06; 4.0621; 4.063; 5.513), nor does she envisage or discuss the idea they contain. Langer seems to consider negative sentences a real threat for accounts that defend **(B)** while maintaining that sentences and facts share a form, but does not really engage with the possible solutions to such an apparent threat.

Finally, Langer never considers the possibility of rejecting the Wittgenstenian thesis that sentences and facts should share a form, while endorsing **(B)**. As we saw, this Wittgenstenian thesis is also her first step, i.e. **(RejB1)**, to the conclusion that **(B)** is false. She never calls it into question. For Langer, this was not a negotiable assumption, not even later on in the development of her thoughts. This is even more surprising considering that in 1943 Nagel questioned her exactly on that step in her reasoning:

[t]hat it needs support is clear, for on any ordinary interpretation of what the dictum says it is certainly not true. Consider, for example, the pattern exhibited in the trigonometric formula “ $y \sin x$ ” on the one hand, and on the other hand the pattern exhibited in the sinuous curve which that formula is frequently employed to represent. Where, precisely, is the analogy between these patterns? (1943, 324)

She never answered. This is unfortunate: we clearly would need an answer, before jumping to the conclusion that thesis

(B) Facts are composed of objects and are the fundamental ingredients of the world

is false and that we never know anything about reality itself.

3. CONCLUSION

The *relativity of language, logical patterns, and “facts”* is not for Langer the only problems that *arises directly from logical considerations*. Others are

the origin and status of concepts, their relation to nature and to mind, the whole problem of “universals” and “particulars”, the trustworthiness of reason ... the problem of form and content, the “viciousness” of abstractions, the relation of symbol and sense (1937a, 334).

It should now be clear how she solves and dissolves them, by relying on the same assumptions as she relies on in solving the problems connected with the woeful world of facts. For example, she takes the whole problem of universals and particulars to stem from the erroneous assumption that there is *the form* of reality, and that that form is the one that subject-predicate sentences show us:

philosophers are very liable to be misled by the subject-predicate construction of our language ... the whole theory of particulars and universals is due to mistaking for a fundamental characteristic of reality, what is merely a characteristic of language. (1933, 179)

Her main insight, also in this case, is that, if (!) we take sentences and the facts they express to share a form, we should not assume that the particular form reality is taking in a particular sentence is the only possible one. If we think that a particular form is somehow privileged, we should explain why that is the case. This, as we can learn from the young Langer’s logical arguments and considerations, does not seem the easiest of the tasks.

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ⁱ In Langer & Gadol 1950, 125-6 she states that this *discovery* was made by Sheffer, as well as by Peirce.

ⁱⁱ For Whitehead's influence on the later Langer, and in particular on her aesthetics and philosophy of mind, see Dryden 1997.

ⁱⁱⁱ For Cassirer's influence on the later Langer, see Schulz 2000, chapters 10 and 11.

^{iv} She attributes the notion and principle only to Russell because, she says, "[w]e have Prof. Whitehead's authority to state that Mr. Russell is the originator of the type-theory" (1926a, 222, f.1).

^v To escape Wittgenstein's mysticism, also Russell suggests, as an hypothesis, to take such totality of forms to be illegitimate and, as much as Langer, does not specify why it is illegitimate. Russell moreover urges: "Such an hypothesis is very difficult, and I can see objections to it which at the moment I do not know how to answer" (Wittgenstein & Russell 1922, xxiv-xxv), although he does not say what these objections are. Langer refers to these passages, but does not consider any objection to her and Russell's way out of mysticism.

^{vi} In 1926, Langer maintains that although logic should go beyond language, language is still the criterion for knowledge: “we can not know what can not (in some language) be talked about” (1926b, 438). But she then quite quickly changed her mind. In 1930a, in a section in which Cassirer is often referred to, she in fact urges: “non-discursive reasoning ... is a constituent in ordinary intelligence, and, like all knowledge, involves the appreciation of symbolic structures *qua* symbols. A theory of meaning which either must ignore such phenomena as the significance of Art ... and the existence of incommunicable knowledge ... commits exactly the sins of narrowness which logical philosophy is supposed to avert” (1930a, 152). Thus while logic intended as the study of language is not delimiting what is thinkable and what can be known, logic as the much wider study of symbols is, since all thoughts are the product of the mind’s ability to symbolize.

^{vii} She will then retrospectively say that she learnt this also from Peirce and Royce (1957, 175).

^{viii} According to Innis 2009, 19; 40, Wittgenstein’s picture theory is for the mature Langer working in aesthetics just “really a metaphor, a model and does not constitute any claim to a strict identity or isomorphism”. No matter whether this is really the case, also Innis maintains that the young Langer, who was concerned with what he calls “technical detail and claims” (19), took Wittgenstein’s account seriously, by citing him as reaching the very same conclusions about language as she was reaching.

^{ix} Wittgenstein does not say that *true* sentences are pictures of facts. But it seems advisable to restrict Langer’s considerations to true sentences. On this, see §2.

^x She says that “[t]he founders of symbolic logic ... have called this sort of pattern “propositional function”. But I shall speak of it as a “propositional form”, which means the same thing” (1930a, 93-4). Moreover, it should be noted that *proposition* here, as in Russell 1980, 169, for example, stands for a sentence and not what the sentence stands for, as it is common today.

^{xi} She never referred to Frege, even though she was obviously aware of his work. For example in 1937b she reviewed Scholz and Bachmann’s papers on Frege’s *Nachlass*, in 1950 (Langer & Gadol 1950, 128) she urged that Frege’s work was fundamental for the flourishing of philosophy in the USA in the first half of the XX Century, and in 1951 she was one of the editors of the collected volume in which the famous Church 1951, in which Church discusses and develops Frege’s ideas, was published.

^{xii} Russell’s logical atomism is mentioned by Langer, but only in her 1962, 33, and concerning a different, although related, topic, i.e. the thesis that “the simplest concepts into which we could break down our ideas of a complex phenomenon denoted the actual elements of that phenomenon”.