

Semiotic anthropology and Cassirer's legacy

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Introduction

In contrast with my predecessors in the series of annual Ernst Cassirer lectures, whose talks were held in the very room in which Cassirer used to deliver his lectures, I am prevented by practical circumstances from delivering today's talk in the Lecture Hall. It certainly would have been intimidating to take the floor in such a room and try to follow the path of those who came before. I shall therefore take this as an opportunity to adopt a lateral approach and reflect on what a living tradition is since it is a matter directly related to the subject I would like to dwell upon tonight, i.e. semiotic anthropology.

Keeping up a tradition involves following in the footsteps of predecessors and in this respect, continuators are often dismissed as lacking in originality. Indeed, according to many philosophers today, research consists in producing results the way they are produced in positive branches of knowledge, with the risk of rapid obsolescence being somewhat compensated by the hope of being original. The consequence is not only a quick turnover in the questions that are being philosophically addressed but, more importantly, a degree of blindness to specific phenomena related to tradition that do not sit easily with a productivist research model, since they are not delineated as clear-cut objects of knowledge. This applies in particular to symbolic activities, the study of which lies at the core of semiotic anthropology. Semiotic anthropology is focused on the very specific role played by signs and symbolic activities in human social behaviours and its claim is that these symbolic activities institute the most basic framework for human sociality. Symbolic activities are received from elders who, patiently but also joyfully, teach us to pay attention to their modes of being: speaking in a specific mother tongue and in a certain style suited to the context, using a tool appropriately, playing an instrument, as well as many other shared activities that are passed down to us and that we in turn shall pass on, more or less consciously, to future generations, adapting them to new situations and contexts. Symbolic activities are therefore traditional in the sense that their very mode of existence consists in their being continually renewed through the perpetuation of shared norms. Most importantly, nobody knows the exact reasons why such norms that were not intentionally chosen must be complied with: why use language or a tool in such or such a way in such or such a context, and why adopt a given style in a particular time and place? The justifications usually put forward are sparse, shot with flaws and most often embedded in mythical narratives that nobody can really trust. Symbolic activities cannot therefore be regarded as having been conceptually understood, in the sense of having been analysed into clearly identified components that lend themselves to a process of construction and reconstruction and could therefore be passed down through the generations simply as a particular kind of information.

That is precisely why Cassirer plays an important role in today's philosophical landscape. I suspect that Cassirer would not have considered originality to be a cardinal virtue in philosophy since it presupposes that problems are characterized by a certain kind of solubility that is partially inapplicable to symbolic activities, insofar as they rely on the repetition and transformation of inherited forms more than on the provision of ultimate solutions to well-formed problems. That is not to say that Cassirer was not aware of the most original works of his time in the scientific field. On the contrary, Cassirer devoted most of his intellectual energy to keeping up with the latest results both in the human and in the natural sciences, of which he was, as it were, a keen analyst. But it is as if being an analyst led him to the realization that there were ways of producing meaning other than through conceptual understanding. This was his way of being original and productive, in a very specific sense to which I shall later return.

That is also why Cassirer's philosophy of symbolic forms plays a specific role in philosophical anthropology today. By pointing out the plurality of approaches to the development of meaning, he established a general framework that can be analysed and adapted to contemporary anthropological issues, such as the above-mentioned passing down of shared forms. His philosophy can therefore be considered a legacy to anyone who wishes to study semiotic processes in philosophical anthropology. Just like any other legacy, Cassirer's "philosophy of symbolic forms" is both meaningful and partially opaque, and needs to be reinterpreted in new ways in order to stay alive. That is why I will use Cassirer's philosophical framework somewhat freely, as Ingvild Folkvord just invited us to do by demonstrating how Cassirer's article on Form and Technology can help us to philosophically come to terms with the technology of today¹. I shall therefore try to be as faithful as I can to the spirit of what I regard as the core of his philosophical research and ignore its letter when I find it restricting, for it is only natural that exploration should take precedence over erudition.

I shall start with basic questions regarding the concept of a symbolic form, and this will lead me to make an irreverent claim: that we should decommission part of Cassirer's lexicon if we want to be able to use his ideas in today's philosophical anthropology. I shall then show how contemporary anthropological issues can benefit from this renewed Cassirerian point of view.

¹ A. S. Hoel & I. Folkvord (eds), *Ernst Cassirer on Form and Technology, Contemporary Readings*, Palgrave MacMillan, Basingstoke, 2012.

1. Some very basic queries concerning the *Philosophy of Symbolic Forms*

As is well known – and to the reader’s initial dismay –, there is no explicit definition of a symbolic form² in Cassirer’s extensive works³, as if the concept itself eluded any clear-cut category. This is no coincidence. The expression “symbolic form” should be considered as a kind of proper name that is used to describe human activities from the point of view of tradition. The concept can therefore, so to speak, be used to describe from within the topography of the entire field of human activities. Subsuming any kind of object⁴, a “symbolic form” is not, therefore, a quality that can be attributed to any particular being and defined from any specific external point of view. As a very general operator, a symbolic form should rather be thought of as a semiotic method that makes a type of object accessible and perceptible through a specific use of signs. Hence the three basic semiotic methods originally described by Cassirer: language, myth and science. In this regard, despite avoiding any definition of a symbolic form that would impose a restriction on what should rather be thought of as an open process of producing meaning through various semiotic methods, Cassirer does provide various examples of what he is up to. Later on in his career, he added technology, art, politics and religion (to name only the most important examples) to the three main symbolic forms of which he had initially provided a detailed examination. These forms are not limited to a specific area of reality: for example, a physical theory, which at first sight might seem to pertain exclusively to science, can also be thought of as beautiful if beauty is construed as a way of giving access to a systematic and embracing view on a particular type of object⁵.

This very basic description of the role played by the concept of a symbolic form raises two kinds of problem, the first related to the mutual relationships between symbolic forms in

² To my knowledge, only one article could be considered as directly addressing the question of a definition; see „Der Begriff der symbolischen Form im Aufbau der Geisteswissenschaften“, (see bibliography). From now on, Cassirer’s works will be referenced in their English translations when available; the corresponding German original works will be found in the bibliography.

³ But even in this instance, no clear-cut definition can be found, as if Cassirer deliberately avoided supplying one. This certainly has to do with Cassirer’s general attitude towards German as a philosophical language, the use of which does not, in his case, aim to reveal a deep and concealed meaning through the resonance of isolated words, as in Heidegger for example. On the contrary, the syntagm “symbolic form” already involves a more complex grammatical structure (name and adjective) and is therefore intended to be syntactically analysed.

⁴ Cassirer, *The Myth of the State*, Oxford University Press, Oxford, 1946, p. 34: “Like poetry and art, myth is a “symbolic form”, and it is a common characteristic of all symbolic forms that they are applicable to any object whatsoever. There is nothing that is inaccessible or impermeable to them: the peculiar character of an object does not affect their activity.”

⁵ For example, to Cassirer’s mind, this is precisely what makes the difference between Lorenz’s and Einstein’s hypotheses in modern physics: while the conceptual content of the two descriptions is not a decisive factor, the systematic description of nature supported by the totality of physical knowledge speaks in favour of Einstein’s approach. See Cassirer, *Einstein’s Theory of Relativity*, The Open Court Publishing Company, Chicago, 1923 p. 354: “And even the special theory of relativity is such that its advantage over other explanations, such as Lorentz’s hypothesis of contraction, is based not so much on its empirical material as on its pure logical form, not so much on its physical as on its systematic value.”

Cassirer's own perspective, and the second to the use that can be made of this concept in contemporary research.

11. Two questions about the relationships between symbolic forms in Cassirer's works

11.1. Do symbolic forms tend towards a goal?

As has been often noticed, the very architecture of the *Philosophy of Symbolic Forms*, starting with language, leading on to myth and ending with science can incite the reader to think that science is the final goal of the symbolic process, crowning lesser forms. In many respects, Cassirer's *magnum opus* could be read this way, provided only that the reader follows the general layout of its three parts, starting with language and ending with science. Not that science has an intrinsic privilege of its own over the other symbolic forms, but rather that since *any symbolic form intrinsically tends towards the absolute*, science, like any other form, strives *to occupy this absolute position through its own specific means*⁶. As a latecomer in the historical emergence of symbolic forms, science could, if for no other reason, claim leadership simply on chronological grounds. Science could thus be wrongly interpreted as the climax of the whole process of symbol making – if one were to forget the point of view always advocated by Cassirer according to which philosophy since Kant has managed to interpret this “tendency towards the absolute” in a *critical* way⁷. Only philosophy, therefore, is entitled to assume this absolute standpoint – but in a critical mode⁸ –, and not science, the place of which in relation to philosophy as well as to other symbolic forms will later be specified.

This shows firstly that the relationships between symbolic forms are anything but peaceful throughout their mutual historical development, and secondly that leaving the process of symbol making open is in itself a vital principle in critical philosophy. That is why Cassirer considers the main task of philosophy to be not the constitution of a general science

⁶ See for example Cassirer, *Philosophy of Symbolic Forms*, vol 1: Language, Yale University Press, New Haven, 1953, p. 81: “[...] in the course of its development every basic cultural form tends to represent itself not as a part but as the whole, laying claim to an absolute and not merely relative validity, not contenting itself with its special sphere, but seeking to imprint its own characteristic stamp on the whole realm of being and the whole life of the spirit. From this striving toward the absolute inherent in each special sphere arise the conflicts of culture and the antinomies within the concept of culture.”

⁷ To that extent, it seems to me that Cassirer remained an avowed Kantian (or a Neo-Kantian) throughout his life, notwithstanding the many voices who would detect an evolution of his thought towards a more realist (Goethean) viewpoint during the last period of his life.

⁸ That is also why *philosophy is not itself a symbolic form* among others but the transcendental point of view that makes symbolic forms understandable.

of being (as is the case in the metaphysical tradition⁹), but the exploration of the diversity of being that only becomes apparent if one adopts a critical point of view¹⁰.

That said, the particular diversity of being reflected in the three standard forms described by Cassirer in the *Philosophy of symbolic forms* gives rise to a specific problem, in that such forms are difficult to mutually compare.

112. How can the diversity of standard forms (language, myth and science) be accounted for?

Any unbiased reader should find the Table of Contents of *The philosophy of symbolic forms* rather odd. What can this point of view advocated by Cassirer actually be, that can lump together within a single framework phenomena as thoroughly diverse as language, myth and science? How can science be conceived of without language? And whereas it is habitual to distinguish myth from science, how can it be contrasted with language, bearing in mind that mythical narratives, self-evidently, are linguistically articulated?

Now that it has been made clear that there is no final goal organising the mutual relationships between symbolic forms, we are faced with the problem of finding some other way of understanding their mutual connections. This is obviously a difficult task, as the questions I just raised reveal. The connection between two forms, language and myth, has at least been carefully examined by Cassirer himself¹¹, and it is therefore possible to elucidate their mutual relationship in this particular instance. For Cassirer, language and myth are inseparable at first¹². Language includes mythical aspects, if by “mythical” one understands that which cannot be accounted for in rational terms, such as the expressive and evocative power contained in phonemes¹³ or the idiomatic expressions present in the lexicon¹⁴.

⁹ In a way, the problem of classification of symbolic forms is somewhat similar to the one encountered by Aristotle in his *Metaphysics*: is there a science of being as being or are there only categorical viewpoints on being? The ambiguous answer given by Aristotle is the starting point of the whole metaphysical tradition in philosophy (see Pierre Aubenque, *Le problème de l'être chez Aristote; essai sur la problématique aristotélicienne*, PUF, Paris, 1962). It is this debate, almost unchanged, that reappears in the famous Davos debate between Heidegger and Cassirer.

¹⁰ Cassirer, *Einstein's Theory of Relativity*, The Open Court Publishing Company, Chicago, 1923 p. 445-446: “It seems that the task of a true general critique of knowledge is not to level this multiplicity, this wealth and this variety of forms of knowledge and of comprehension of the world. They should not be forced into a purely abstract form of unity but on the contrary one should maintain them as they are. As for the totality of forms that we are facing here, it is only if we resist the temptation of compressing them in an ultimate metaphysical unity, in a unity and simplicity of an “absolute foundation of the world” and of deducing them from this foundation that their true nature and their concrete richness begin to appear.”

¹¹ Cassirer, *Language and Myth*, Harper & Brothers, New York, 1946.

¹² “At first” does not refer to a chronological order but to a logical one.

¹³ See for example Cassirer, *The Philosophy of Symbolic Forms*, vol 1: Language, Yale University Press, New Haven, 1953, p. 191-192 where Cassirer quotes G. Curtius, *Grundzüge der griechischen Etymologie*, p. 96 : “All the peoples of our family from the Ganges to the Atlantic designate the notion/concept of standing by the phonetic group *sat*; in all of them the notion of flowing is linked with the group *plu*, with only slight modifications. This cannot be an accident.”

Symmetrically, myth expands by capturing linguistic values and adapting them to its own goals, as we shall see from an example Cassirer often makes use of¹⁴. At an even deeper level, language and myth proceed from a common aspiration, the purpose of which is not to adequately represent the external world, but to present the world as their own creation. This is nowhere more visible than in metaphor, which, in a typically mythical fashion, uses a variety of semantic contexts as resources to create a novel unit of meaning, thereby creating new ways of accessing reality that did not exist beforehand.

Nevertheless, the mutual ties of language and myth are altered when philosophy and science come into play as rational authorities. For according to Cassirer, both philosophy and science are born of a violent divorce from the powers of expressivity, analogy and metaphor contained in language and myth in their native state. This divorce is historically situated: it took place in Ancient Greece, which emerged as a “crisis” – as Ernst Cassirer phrases it, that is to say as a split between what would thereafter become two competing semiotic methods of producing meaning, linguistic-mythical on the one hand and philosophical-scientific on the other. This competition for absolute dominion cannot end, since philosophy and science do not merely leave language and myth aside, but redirect their semiotic means towards philosophical and scientific goals, respectively the analysis of *meaning* in philosophy and that of *causality* in science. From that point of view, if language and myth tend to interpret the world as their own creation through expressive and emotional means, philosophy and science tend to the same goal but in a symbolic way, replacing what pretends to be real forces in language and nature by conceptual ones, governed by prescriptive laws. One could object that the rerouting of semiotic forces derived from language and myth towards philosophical and scientific goals could, in a certain way, be viewed as a typically mythical move: in the exact same way that myth makes its own use of the linguistic forces of expressivity, analogy and metaphor, philosophy and science also redirect linguistic and mythical forces towards their

¹⁴ Cassirer, *Substance and Function*, The Open Court Publishing Company, Chicago, 1923, p. 222: “For instance, there is no entirely definite intuitive content corresponding to the word “bird” but rather only a certain vague outline of form along with a vague presentation of wing movement, so that a child may call a flying beetle or butterfly a bird; the same is originally true of all our universal presentations. They are only possible because we have, along with the concrete and complete sense perceptions, also less perfect and definite contents of consciousness. The indefiniteness of the memory-images of our actual sensations involves that, along with the vivid and immediately present, sensuous intuitions in the real process of consciousness, pale residua of them are always found, which retain only one or another feature of them; and it is these latter, which contain the real psychological material for the construction of the universal presentation.”

¹⁵ Cassirer, *Language and Myth*, Harper & Brothers, New York, 1946, p. 4: “The examples by which Max Müller supports this theory are characteristic of his approach. He cites, as one instance, the legend of Deucalion and Pyrrha, who, after Zeus had rescued them from the great flood which destroyed mankind, became the ancestors of a new race by taking up stones and casting them over their shoulders, whereupon the stones became men. This origin of human beings from stones is simply absurd and seems to defy all interpretations – but it is immediately clarified as we recall the fact that in Greek men and stones are denoted by identical or at least similar sounding *names*, that the words *laoi* and *laas* are assonant?”

own goals. It is precisely the solution to this problem that Cassirer develops as the ultimate goal of the *Philosophy of symbolic forms*, which is to reintegrate language and myth within the sphere of philosophical and scientific rationality by making conscious that of which they had previously made use on an unconscious level, i.e. their specific power of producing meaning through expressivity, analogy and metaphor. It is therefore the production of meaning itself that becomes the object of philosophical attention in the *Philosophy of Symbolic Forms*, whether it is considered in the linguistic, the mythical or the scientific domain. Consequently, the ontological stance that inclines to project real forces on nature through an unconscious use of language and myth is replaced by the critical stance, which, by interpreting this ontological tendency, makes this use conscious without affecting its potency. It is through these various modalities that the unity of rationality is being restored, ranging from language and myth to philosophy and science.

It is therefore possible to conclude that language, myth and science are not simply viewed in opposition to one another, as a hasty reader simply browsing the *Philosophy of symbolic forms* might at first be led to suppose. They have deeply rooted connections, as well as disconnections that form the true content of the history of rationality, both from a philosophical and from a scientific perspective.

12. Contemporary use of Cassirer's perspective

Philosophical and anthropological research has made use of the concept of a symbolic form after Cassirer and, in some contexts, the meaning of the concept has drifted away from its original acception. This is an old story: even in Cassirer's time, the concept was borrowed by his colleague in Hamburg Erwin Panofsky to describe perspective in the art of the Renaissance¹⁶, which is rather far-fetched considering the typical symbolic forms Cassirer had already described at that time. This example raises at least two difficult problems relating to the comprehension and the extension of the concept of a symbolic form: first, from an intensional point of view, at exactly what level of reality should we consider that such and such meaningful activity generating its own use of signs is a symbolic form, given that a great variety of semiotic methods can be thought of – from “macroscopic” ones such as language or religion to “microscopic” ones such as, say, perspective or analytic geometry¹⁷ –? Secondly,

¹⁶ E. Panofsky, *Perspective as symbolic form*, New York, Zone Books; Cambridge, Mass. MIT Press, 1991.

¹⁷ Cassirer, *Substance and Function*, The Open Court Publishing Company, Chicago, 1923, p. 72: “*The fundamental principle of analytic geometry*. This connection appears even more clearly when we consider the special development which analytic geometry received from Descartes. Here it appears that the apparently individual form of exposition contains features of universal significance which, in another guise, run through the whole philosophical history of geometry. The fundamental concept upon which Descartes founds his considerations is the concept of movement.”

from an extensional point of view, and considering that new semiotic methods are always likely to emerge from human activities, how is it possible to organise these forms in any systematic way?

121. At what level of reality is the concept of a symbolic form relevant?

To my knowledge, Cassirer never developed answers to the questions related either to the scope of symbolic forms (in comprehension or in extension) or to their future uses in contexts that he couldn't anticipate. Looking for plausible answers to these questions will have at least one philosophical consequence: we must ask ourselves whether these answers would or would not modify the critical stance of neo-Kantian origin upheld by Cassirer, which is so important as far as the coherence of his whole philosophy is concerned.

Let me begin by asking: what can we conceive of as new symbolic forms in our present cultural context? The book *Form and Technology; Contemporary Readings* that Ingvild Folkvord presented just before this talk, in which the article on technology as a symbolic form written by Cassirer is translated into English for the first time and assessed from a present-day vantage point¹⁸, can be of critical assistance. Some of the contributors – including three members of the present company! – developed arguments showing that radio¹⁹, cave art²⁰ and money²¹ can be considered as symbolic forms in their own right, since they generate new ways of engaging human practice by devising specific roles and signs adapted to the activities they correspond to. Let me briefly review the arguments that were put forward in these chapters.

In the case of radio, Ingvild Folkvord²² argues among other points that the once taken for granted distribution of roles between a passive receiver and an active producer which entailed a conception of radio as a mainly intrusive and manipulative technology is in fact historically situated. Contrary to what occurred in the USA, where radio broadcasting was left to the private sphere, broadcasting in Weimar Germany was State-owned. This monopoly had

¹⁸ A. S. Hoel & I. Folkvord (eds), *Ernst Cassirer on Form and Technology, Contemporary Readings*, Palgrave MacMillan, Basingstoke, 2012, p. 7.

¹⁹ I. Folkvord, "The Power of Voice; Ernst Cassirer and Bertolt Brecht on Technology, Expressivity and Democracy" in A. S. Hoel & I. Folkvord (eds), *Ernst Cassirer on Form and Technology, Contemporary Readings*, Palgrave MacMillan, Basingstoke, 2012, p. 161-180.

²⁰ M. Rosengren, "Cave Art as a Symbolic Form" in A. S. Hoel & I. Folkvord (eds), *Ernst Cassirer on Form and Technology, Contemporary Readings*, Palgrave MacMillan, Basingstoke, 2012, p. 214-232.

²¹ J. Lassègue, "Technical Activity as a Symbolic Form; Comparing Money and Language" in A. S. Hoel & I. Folkvord (eds), *Ernst Cassirer on Form and Technology, Contemporary Readings*, Palgrave MacMillan, Basingstoke, 2012, p. 139-160.

²² I. Folkvord, "The Power of Voice; Ernst Cassirer and Bertolt Brecht on Technology, Expressivity and Democracy" in A. S. Hoel & I. Folkvord (eds), *Ernst Cassirer on Form and Technology, Contemporary Readings*, Palgrave MacMillan, Basingstoke, 2012, p. 166.

a significant impact on conceptions of the new medium. In the debate that arose at that time in Germany, the fixed conception of active versus passive roles in radio was indirectly challenged by Cassirer's general observations on technology since he was among the first to recognise not only the emancipating virtue of technology (in a rather Hegelian-Marxist fashion), but also its formative aspects in the general process of culture. As far as radio is concerned, Ingvild Folkvord can therefore argue that the formative aspects of the new medium become apparent if we are sensitive to some of its basic semiotic features, one of which being that a radio listener must first be able to incorporate actively the oral dimension of expressivity so that listening itself can generate meaning²³. Radio and media technology in general can therefore be incorporated in the general creative process of culture that Cassirer succeeded in describing as the integration of new dimensions of sense production into particular symbolic forms, the specific semiotic means of which can be studied in their own right. In this regard, radio not only conveys oral content to an audience of listeners on a massive scale, it also opens up a new dimension in oral communication that could not be anticipated on an *a priori* basis but which the framework of the philosophy of symbolic forms can still analyse and account for.

In the case of cave art, Mats Rosengren first shows that cave art studies would benefit from an analysis developed in Cassirerian terms, which would help to avoid two common pitfalls in the field – the first being the hypothesis of the mimetic nature of this art form, itself wrongly construed as independent from any active participation either from those who conceived it in the past or from those who apprehend it today²⁴. Secondly, it would help focus on the various practical conditions as well as the embodied gestures that make cave art possible by going back to the surmised prehistoric techniques that researchers have already begun to reassess. Mats Rosengren uses the example of the Panel of Horses in the Pech Merle cave, whose chronology of production, along with the materials and techniques that were used, Michel Lorblanchet has convincingly established by building a replica of the panel in the vicinity of the cave²⁵. In this regard, not only does cave art appear as a symbolic form, but the interpretative framework that is thereby established can help determine its most specific technical features and attitudes.

²³ I. Folkvord, "The Power of Voice; Ernst Cassirer and Bertolt Brecht on Technology, Expressivity and Democracy" in A. S. Hoel & I. Folkvord (eds), *Ernst Cassirer on Form and Technology, Contemporary Readings*, Palgrave MacMillan, Basingstoke, 2012, p. 173.

²⁴ M. Rosengren, "Cave Art as a Symbolic Form" in A. S. Hoel & I. Folkvord (eds), *Ernst Cassirer on Form and Technology, Contemporary Readings*, Palgrave MacMillan, Basingstoke, 2012, p. 218.

²⁵ In a more recent book, Mats Rosengren gives an extensive description of these techniques, of the way they can be related to specific gestures and of how they can contribute to a better understanding of the embodied mind. Cf. M. Rosengren, *Cave Art, Perception and Knowledge*, Palgrave Macmillan, 2012, especially p. 136-142.

As far as my own contribution is concerned, I tried to show that, in the thirties, Cassirer regards language and technology as the two most basic symbolic forms and that their problematic relationship – the first one being immediately semiotic and expressive while the second is neither of the two – can be best approached through the detailed analysis of an example Cassirer never dwelled upon himself, that of the relationship between money and language. By showing that the concept of activity is embodied and traditionally transmitted between humans in such a way as to entail a social distribution of roles and obligations, it is made apparent that activity is at the core of what both money and language actually accomplish. It thus becomes possible to understand how money, which at first would seem to be a mere tool to be construed as deprived of any semiotic and expressive meaning, can in fact be regarded as a symbolic form since it progressively evolves into a self-conscious activity governed by shared norms, true to the definition of a human activity. It is therefore possible to show that the four functional roles usually attributed to money (evaluation, payment, circulation and saving) are also present in language (differential meanings, types of discourse in specified contexts, diversification of meaning, lexicon) and that the scope of these common functional roles is therefore such that they can be extended to symbolic forms in general. The comparison between money and language can therefore help to elucidate three aspects of Cassirer's philosophical stance: firstly, it makes it possible to specify what is meant by *functional* (as opposed to substantive) in the concept of a symbolic form; secondly, it can help to clarify in what sense *activity* can be conceived of as the common source of language and technology interpreted as the most basic of forms, and thirdly, it can shed light on how this common source can be said to play an *anticipative* role in social practices.

These three examples are nothing but instances of the possibility of extending the concept of a symbolic form to cultural contexts that are different from those that Cassirer studied himself, and they provide ample illustration of the concept's fecundity. However, this very fecundity poses a serious threat to the coherence of the concept itself, for, in the end, what could prevent us from considering any semiotic activity taken at a macroscopic or microscopic level as a symbolic form? If the answer is "nothing", then whatever is gained in terms of extension or comprehension from an analysis making use of the concept of a symbolic form as a guiding thread would be paid for in terms of determination. And that is why the question of a possible systematic organisation of symbolic forms becomes all the more crucial.

122. *How is it possible to organise symbolic forms in any systematic way?*

If we go back to the historical origin of the problem of scientific determination in the neo-Kantian school, we know that Cassirer, as he witnessed the Einsteinian revolution of relativity, tackled the philosophical task of amending the nature and scope of Kantian schematism. Kantian schematism, construed as the functional source of determination, is grounded in the univocal Euclidean framework of intuition. What is out of reach of schematism would belong either to ethics or to aesthetics, themselves governed by other types of object construction. Cassirer was among the first to immediately understand²⁶ that, in order to philosophically justify the extension of physics beyond the classical (Newtonian) domain, the non-Euclidean methods Einstein had used in physics needed to be ascribed to a symmetric origin in schematism²⁷: hence the appraisal of Euclidean schematism as being only one method of determination among others rather than its unique source, as well as the problem of coordinating these various functional methods in the field of scientific determination²⁸. But this epistemological change in the scope granted to schematism has an immediate philosophical consequence: it entails that one should account not only for the harmonisation of methods of determination in the scientific field, but also for the harmonisation of object construction in all sectors of reality. This in turn requires one to account for the intertwining of the determinate, ethical, technical and aesthetic aspects that are always involved in object construction, even in the scientific field, as shown by Cassirer based on the example of Einstein's relativity²⁹ or on the relationship between language and technology³⁰. One philosophical problem is therefore still pending – even if Cassirer opened up the way – for those whose aim is to explore all types of semiotic activity, the functional coherence of which was never considered as such by Cassirer: if what is at stake is not the delimitation of a boundary between science and non-science which is still a typically neo-Kantian question insofar as it tends to interpret symbolic forms as instances of knowledge (science as opposed to myth for example), but the harmonisation of the determinate, ethical, technical and

²⁶ Cassirer, *Substance and Function*, The Open Court Publishing Company, Chicago, 1923, p. 111: “If any firmly established observations appear, which disagree with our previous theoretical system of nature, and which cannot be brought into harmony with it even by far-reaching changes in the physical foundations of the system, then, [...], the query may arise whether the lost unity is not to be re-established by a change in the “form of space” itself.”

²⁷ The problem of schematism therefore evolves into the typical Cassirerian problem of symbolism. Cassirer, *The Problem of Knowledge: Philosophy, Science, and History since Hegel*, Yale University Press New Haven and London, 1950, p. 114: “Here a particular symbol can never be set over against a particular object and compared in respect to its similarity. All that is required is that the order of the symbols be arranged so as to express the order of the phenomena.”

²⁸ This was one of the goals pursued by geometrical research during Cassirer's lifetime, from Felix Klein to Elie Cartan.

²⁹ For example, the Einsteinian model of relativity is preferred to that of Lorentz's for reasons that pertain not only to logic, but also to a systematic viewpoint (see note 5).

³⁰ Cassirer, “Form and Technology” in A. S. Hoel & I. Folkvord (eds), *Ernst Cassirer on Form and Technology, Contemporary Readings*, Palgrave MacMillan, Basingstoke, 2012, p. 22 sqq.

aesthetic aspects that are transposable from one object construction to another, then the philosophical question that must be addressed becomes: what kind of functional method should be devised in order to systematically account for these aspects in any symbolic form³¹?

I take the book on *Form and Technology* Ingvild Folkvord has just presented as a roadmap leading to a thorough answer to this problem. As far as my own work is concerned, the analogy I drew between language and money in this volume was intended as a partial contribution to the functional analysis of some of the aspects I just described (only the linguistic and technological ones, to be precise). I would now like to add a further contribution to the problem by devising a thought experiment that hopefully will help us explore new paths leading to a more integrative solution.

2. Let us forget about the letter of *The Philosophy of Symbolic Forms*!

As I remarked earlier³², Cassirer's lexicon can be misleading and requires to be treated with caution by anyone wanting to make use of it today. That is why I would suggest leaving it aside for the time being and devising new terms better suited to the functional analysis I am aiming at. Let us therefore forget about the rather misleading names of the three main forms described by Cassirer in *The Philosophy of Symbolic Forms* and try to examine what they mean. I believe that Cassirer's intention was not to describe any specific type of knowledge, whether it be language, myth or science, but to study their transcendental functions. These functions are exemplified in the three paradigmatic types of knowledge that are called language, myth and science but are by no means limited to them. I therefore claim that "Idiomativity in forms" should be substituted for "Language", "Transferability in forms" should be substituted for "Myth" and "Pre-establishment in forms" should be substituted for "Science". I will try to explain and justify my point of view in the following pages by exploring the consequences of this lexical shift, showing firstly that it can be justified in the context of Cassirer's own perspective, and secondly that it can also be extended to a functional analysis conducted from a contemporary standpoint.

³¹ The nature of knowledge therefore becomes the harmony or dissonance of these aspects that tend to give rise to different types of knowledge: there are domains that appear more 'determinate' (even if the other aspects are still present in them), while others are more technical or ethical or technological.

³² See § 112.

21. Idiomaticity in forms

As I just said, what should be emphasised first is that the aim of *The Philosophy of Symbolic Forms* is not to answer the three ontological questions: “what is language?”, “what is myth?” and “what is science?” but to describe, in any type of knowledge, three specific modalities of object construction that mostly appear in language, myth and science but are not limited to them. I shall therefore begin with the description of idiomaticity in language, but I shall not limit myself to it. Indeed, even if language appears to be the most basic condition for a symbolic form to emerge (hence its prominent role as a framework from which other forms derive), what is actually echoed in language, i.e. the type of object construction that it makes possible, is not limited to purely linguistic aspects.

211. Idiomaticity in language

As I just said, I shall first justify the lexical shift I propose to make by showing that it is in harmony with Cassirer’s own perspective. The example I shall take is a remark relative to the field of semantics that Cassirer cites on several occasions in his works; here is one instance of it³³:

“Even in languages closely akin and agreeing in their general structure we do not find identical names. As Humboldt pointed out, the Greek and Latin terms for the moon, although they refer to the same object, do not express the same intention or concept. The Greek term (men) denotes the function of the moon to "measure" time; the Latin term (luna, lucna) denotes the moon's lucidity or brightness. Thus we have obviously isolated and focused attention on two very different features of the object. But the act itself, the process of concentration and condensation, is the same.”

In this example, the linguistic construction of the object ‘moon’ is clearly idiomatic and Greek differs from Latin in this particular instance. What is interesting in the example is that idiomaticity is conceived very differently in the two languages: whereas ‘brightness’, in Latin, can be referred to a perceptible feature of the moon, such is not the case of ‘measure’ in Greek, which may be interpreted as a cultural trait. Therefore, the example shows that the origin of idiomaticity does not depend on concrete features, as one would normally presuppose if one were to stick to an etymological approach. On the contrary, it is a specific arrangement of several Greek cultural traits gathered in the meaning of ‘what is measured’

³³ Cassirer, *An Essay on Man; an Introduction to a Philosophy of Human Culture*, Yale University Press, Yale, 1944, p. 173.

that explains why the object ‘moon’ was given such a value – namely, the spherical aspect of the moon, the attribute of the goddess Artemis and the role played by the goddess in the activity of evaluating³⁴. This specific arrangement within Greek culture at a certain moment in time can therefore be condensed in a single linguistic form (‘men’), a process one finds at work in the particular case of the word for moon but also in many other instances throughout the Greek language.

Based on this example, it becomes possible to extend Cassirer’s point of view in two directions.

First of all, it becomes possible to show that idiomaticity appears not only at lexical level, but at any level of linguistic construction, and that it should be construed as the unfolding of semantic configurations giving access to situations, which, at first sight, have nothing in common³⁵. Let me quote the work of Pierre Cadiot and Yves-Marie Visetti, which highlights some of these semantic configurations in the French language³⁶:

- in the domain of the perception of forms, the meaning of roundness can be conveyed by “ballon” which appears at first to mean only *ball* but can be found in phrases as different as: [“ballon”] “de foot” [a football] / “d’Alsace” [mount of Alsace] / “de rouge” [a glass of red wine] even though these semantic fields seem to have nothing in common.

- in the domain of functional perception, the meaning of entrance / exit can be conveyed by the word “bouche” which appears at first to mean only *mouth* but can be found in expressions as different as: “provision de bouche” [a comestible] and “bouche de metro” [metro exit] even though, here again, these expressions seem to have nothing in common.

- in the domain of practical disposition, the meaning of a comfortable position can be conveyed by the word “fauteuil” which appears at first to mean only *armchair* but can be found in other expression, the meaning of which seems very remote from the practical domain, such as: “Martin a gagné dans un fauteuil” [Martin won in an armchair].

These semantic configurations can be found not only at the lexical level but also at the grammatical level, for example in prepositions like “sur”³⁷ [on] which can be used in

³⁴ I described this specific arrangement between the moon, the goddess Artemis and the act of measuring in “Technical Activity as a Symbolic Form; Comparing Money and Language’ in *Form and Technology*, p. 148-149.

³⁵ This way of characterizing meaning is therefore completely opposed to the logical-analytic approach.

³⁶ Y.-M. Visetti, “Language, Space and the Theory of Semantic Forms”, in A. Carsetti, (Ed), *Seeing, Thinking and Knowing – Meaning and Self-Organisation in Vision and Thought*, pp. 245-275, 2004, Kluwer Academic Publishers, Dordrecht; Y.-M. Visetti & P. Cadiot, “Instability and theory of semantic forms ; Starting from the case of prepositions” in *Prepositions in their Syntactic, Semantic and Pragmatic Context*, S. Feigenbaum & D. Kurzon (eds), p. 9-39 (2002), Amsterdam, John Benjamins. [online at: http://formes-symboliques.org/article.php3?id_article=23]

³⁷ P. Cadiot & Y.-M. Visetti, *Pour une théorie des formes sémantiques*, PUF, Paris, 2001, p. 25-26.

sentences as different as “le livre est sur le table” [the book is on the table], “marcher sur Rome” [to march on Rome] or “impôt sur le revenu” [income tax].

The first remark that should be stressed is that the idiomaticity that appears in all these examples does not depend on a literal meaning derived from concrete features related to perception and later transferred to more abstract ones³⁸. Idiomaticity appear, as Cassirer had already conjectured when he simultaneously gave the Latin and Greek example of ‘moon’, as a condensation of traits in a single configuration (‘ballon’, ‘bouche’, ‘fauteuil’ or ‘sur’) which may be used in a wide variety of situations. The second remark that should also be emphasized is therefore that the origin of these configurations is not concrete, but depends on specific cultural traits that cannot be anticipated in advance. It follows that idiomaticity bridges the divide between concrete and abstract meaningful traits, and cannot be traced back to an ‘origin’, for such traits can disappear or be reconfigured in some other way through the historical development of a language. Let me draw an example from the historical development of Latin into French. The term ‘luna’ (moon) stayed phonetically almost identical (‘lune’ in French), but the meaning of lucidity and brightness attached to the word was completely lost on the way (there is no direct connotation of brightness in ‘lune’ for a French speaker). Nevertheless, it is striking that a common ‘mistake’ of young children learning to speak French is to deform ‘la lune’ into ‘*la lume’, making it a fictitious derivative of the verb ‘allumer’ (to switch on) or of the noun ‘la lumière’ (light), once again finding in the moon the meaning of lucidity and brightness, this time on the basis of a purely phonetic kinship! One could of course try and stick to the idea that there seems to be some kind of inner drive in Romance languages, which tends to relate moon and brightness to one another even if it is on the basis of erroneous assumptions. But, in addition to the fact that it would be very difficult to provide rational justification of such a drive, it is far simpler to interpret this example as a confirmation that what is genuinely idiomatic in language is the constant impulse to motivate usage by imagining relationships between semantic features at any level of linguistic construction, whether these relationships are fictitious or not. Therefore, it is not the ‘real’ as opposed to the ‘fictitious’ origin that should be stressed as far as idiomaticity is concerned, but rather the tendency to motivate speech in particular situations, even if this requires a constant reinvention of its origin³⁹.

³⁸ Cognitive grammars tried to limit these semantic configurations to a purely spatial level, in some way akin to Kantian spatiotemporal intuition (see for example, J.-M. Salanskis, ‘Continuity, cognition, linguistics’, in *The Continuum in Semantical Linguistics*, C. Fuchs and B. Victorri (Ed.), Amsterdam/Philadelphia, J. Benjamins, p. 127-153.

³⁹ In his *Cours de linguistique générale*, Saussure gives numerous examples of this phenomenon. If ‘*lume’ is rejected, some other instances in the same vein are incorporated into French.

The second direction that can be taken in order to further extend Cassirer's point of view on idiomaticity consists in showing that the concept itself does not apply to language only, but to other symbolic forms as well. This is particularly important in the perspective I here wish to defend, since my goal is to show that idiomaticity is not limited to language but should be construed as a general expression pertaining to all symbolic forms.

212. *Idiomaticity in myth*

I shall begin with an example that returns several times in Cassirer's works and that is borrowed from Max Müller⁴⁰:

“In Greek mythology, as in many other mythologies, we find, for instance, the story of a great flood by which the human race was destroyed. Only one couple, Deucalion and his wife Pyrrha, were saved from the deluge sent by Zeus over Hellas. They landed on Mount Parnassus and here they were advised by an oracle to cast behind themselves the ‘bones of their mother’. Deucalion found the true interpretation of the oracle; he picked up stones from the field and cast them behind his back. From these stones there arose the new race of men and women. What is more ridiculous, asks Max Müller, than this mythological account of the creation of the human race? And yet it becomes easily understandable with the key given us by the science of comparative mythology. The whole story turns out to be a mere pun – a confusion of two homonymous terms – of *laïos* [man] and *lâas* [stone].”

It is easy to detect in this example the same kind of idiomatic configuration as the one I have just mentioned. What is a “mere pun”, and appears as purely random on the level of meaning, corresponds to a relationship of near identity on the phonetic level, and must therefore be justified: why, phonetically speaking, is *lâas* so close to *laïos* in Greek?

Today, Max Müller's perspective has long been forgotten and this question itself would of course be wrong-footed if it were interpreted as calling into question Saussure's principle of the arbitrariness of the sign. Yet such is not the point of view from which the question is asked, which is the point of view of discourse, for such is the level at which the homophony between *laïos* and *lâas* was perceived at a certain moment in time. It is therefore undeniable that what is to be accounted for is the perception of a radical strangeness in mythical narration that persists in spite of our knowledge of the arbitrariness of the sign, a strangeness that anthropology has to address in one way or another. Generally speaking, the

⁴⁰ Ernst Cassirer, *The Myth of the State*, Oxford University Press, Oxford, 1946, p. 19. See also Cassirer, *Language and Myth*, Harper & Brothers, New York, 1946, p. 12.

response given by anthropology to this kind of issue has focused on meaning, and it is of course quite tempting to start from there. From Durkheim's and Mauss' social analysis of myths as representing the evolution of social groups by way of totemism⁴¹, to Lévi-Strauss and his structural analysis of the fundamental variability of myths⁴² or Dumézil's diachronic analysis of social functions in the myths of the Indo-Europeans⁴³, anthropology has put particular emphasis on the role played by categorisation in myths, which was meant to explain the apparent strangeness of their meanings that manages to encompass analogies and kinships between entities seemingly so different as stone and man, moon and eagle, speaking animals, lustful and vindictive gods, prophecies and magic, within a single framework. The reasoning roughly goes as follows: since the aim of categories is not to provide precise descriptions of world entities, but, at a very abstract level, to synthesize entities that might be radically different from one another but still share a common distinctive feature (Chthonian as opposed to Olympian deities, Mammals as opposed to Birds, etc.), it is only at this abstract level that the strangeness of mythical discourse can be rationalised.

To my mind, this is not the kind of answer Cassirer is looking for. In fact, what he seeks to clarify lies in the exact opposite direction: it is not by supposing an abstract concept like that of a "mythical thought" (even though he often uses the expression himself⁴⁴), the function of which would be to organise categories, that the strangeness of mythical discourse can be subjected to a rational approach. As the example of the phonetic analogy between *laiōs* and *lâas* shows, the pairing of two words (or, for that matter, of any two parts of discourse) unveils a specific synchronic expressivity that bestows a kind of inner life on the act of pairing itself, as if it proceeded from an intention whose nature narrative would subsequently reveal. The fact that mythical narratives are often focused on 'origins' (in this particular example, the origin of the human race) therefore proceeds less from the description of the primitive beginnings they are supposed to explain than from the constant reactivation of the expressive dimension of language which is at the core of this particular type of discourse. Idiomaticity should therefore be considered as part of the intrinsic structure of mythical narration⁴⁵.

⁴¹ É. Durkheim & M. Mauss, "De quelques formes primitives de classification. Contribution à l'étude des représentations collectives", *L'année sociologique*, 1903, pp. 1-72.

⁴² C. Lévi-Strauss, *Anthropologie structurale deux*, Paris, Plon, 1973: "La geste d'asdiwal", p. 175-234

⁴³ G. Dumézil, *Mythe et épopée I, L'idéologie des trois fonctions dans les épopées des peuples indo-européens*, Gallimard, Paris, 1968.

⁴⁴ E.g. The title of the second volume of *The Philosophy of Symbolic Forms: Mythical Thought*".

⁴⁵ The narrative function of language is therefore embodied in the semantic structure of the sentence, any sentence being the unfolding of a "little drama", as the linguist L. Tesnière used to say (*Éléments de syntaxe structurale*, Klincksieck, Paris, 1959, p. 120 ; private communication from Yves-Marie Visetti).

The example given by Cassirer thus has far-reaching consequences, since what I previously termed ‘idiomaticity’ belongs to the most primitive foundation of a general expressive dimension that ultimately applies to all symbolic forms. It is of course only at a particular moment in the history of a language and in a particular narrative form that *laïos* and *lâas* are perceived as expressive, but idiomaticity is to be found elsewhere and is by no means restricted to languages or myths, as was pointed out by Cassirer himself⁴⁶. Many examples could be drawn from Cassirer’s works themselves, ranging from technology – concerning which Cassirer claims that its idiomatic foundation lies in its embodiment – to aesthetics – for example in the way Cassirer describes the powerful expression coined by Plato, who, by opposing *Eidos* and *Eidolon* in spite of their common origin, manages to establish the limits of any possible aesthetical configuration in the development of art⁴⁷.

It is possible to adopt an even more general point of view concerning the expressive power of idiomaticity once we realise that it was precisely the ambition of Gestalt psychology to lay down the foundations of a general theory of expression in forms, whether artificial or natural. One of the basic ideas developed in Gestalt psychology was to start from the concept of a psychophysical field beyond the classical philosophical distinction between subject and object. In this field endowed with spatial, temporal and practical properties, definite forces of organization, stabilization and individuation of unities were at work that would become perceivable through forms emerging from the reversible contrast between figure and ground. Any type of equilibrium between these organising forces within this field would have direct consequences on the expressive perception of the emerging forms. Therefore, perception and meaning were not considered as two different stages, the mutual relationship of which would always remain problematic, but, on the contrary, were linked to one another as the subject of scientific descriptions⁴⁸. The idiomatic value of expression was thus thought to be present in

⁴⁶ Cassirer, *The Philosophy of Symbolic Forms*, vol. 4, trad., J. Krois & D. Verene, Yale University Press, 1996, p. 5-6: “In the previous investigations, we separated the dimension of “expression” from that of “representation” and of “signification”, and we have used this tripartite division as a kind of ideal system of relations. By reference to it we were able to establish and, so to speak, read off the unique character of the forms of myth, the form of language and the form of pure knowledge.”

⁴⁷ Cassirer, „Eidos und Eidolon. Das problem des Schönen und der Kunst in Platons Dialogen“ [1924], p. 139: „Es ist ein Zeugnis für die gewaltige Sprachkraft Platons, wie es ihm gelungen ist, hier mit einer einzigen Variation, mit einer leichten Tönung des Ausdrucks, einen Bedeutungsunterschied festzuhalten, der bei ihm an systematischer Schärfe und Prägnanz nicht seinesgleichen hat.“

⁴⁸ This was the case for Wertheimer’s laws of Gestalt ; see M. Wertheimer, (1923). « Untersuchungen zur Lehre der Gestalt, II » *Psychologische Forschung* 4, 301-350. English translation under the title "Laws of organization in perceptual forms" in W. D. Ellis, (Ed.) (1938). *A Source Book of Gestalt Psychology*, Kegan Paul, Trench, Trubner and Co., London, 1938: 71-88.

every act of perception⁴⁹ and to explain why objects and situations appear endowed with intrinsic qualities: colours and voices can be warm, a sky can be threatening, an armchair or a country can be welcoming and a willow weeps by dint of the intrinsic spatial orientation of its foliage⁵⁰. These expressive qualities are recorded differently in different languages, which therefore play a crucial role in their stabilisation⁵¹: hence the fundamental idiomaticity of languages, which simultaneously record these expressive qualities in idiomatic linguistic traits and reinforce their possible transfers to new perceptive situations. In the case of mythical narratives, Cassirer himself pointed out the role played by these expressive qualities that are personified and become animated beings: what he calls the “momentary gods”⁵², like ‘The thunderous’, ‘The howling’ or ‘The buzzing’, are in fact projections of expressive qualities onto real or fictitious entities that are stabilised through language. The example of the ‘buzzing’ is particularly clear for us today since we easily understand how its value can be used in very different contexts (beehive, telephone call, Internet rumour) up to a point where ‘buzz’ becomes an independent entity endowed with active qualities of its own, as if it were some kind of personified entity (in expressions like ‘create a buzz’).

213. Idiomaticity in science

I have already remarked that in the context of the interpretive framework that Cassirer applies to the history of knowledge, philosophy and science redirect the mythical power of language towards their own goals and, in so doing, unconsciously take the risk of reproducing the mythical gesture itself⁵³. But it is precisely Cassirer’s claim that only philosophy is able to reintegrate the mythical and idiomatic power of language into the sphere of rationality by making this gesture conscious through scientific modes of producing meaning. Science therefore plays a dual role in the structure of *The Philosophy of Symbolic Forms*: it is through a scientific approach that the mythical power of language can be studied rationally, but it is through philosophy that the mythical gesture of science can be demystified. Even in science, therefore, idiomaticity plays a role that must be philosophically clarified.

Cassirer inherited from his masters of the Marburg School the problem of the historicity of science, which was merely hinted at by Kant in the last chapter of the *Critique*

⁴⁹ Köhler would often take fire as an example : it is not only a series of moving forms that could be precisely determined but has an intrinsic expressive power that is immediatly given and is related to the qualities of heat, violence and excitement.

⁵⁰ R. Arnheim, *Visual Thinking*. Berkeley, Univ. of California Press, 1969.

⁵¹ S. Asch, (1958). The metaphor: A psychological inquiry, in *Person perception and Interpersonal behavior* (Tagiuri et Petrullo, éd.) quoted in Y.-M. Visetti & V. Rosenthal, *Köhler*, Les Belles Lettres, Paris, 2003 p. 189.

⁵² Cassirer, *Language and Myth*, Harper & Brothers, New York, 1946, p. 71.

⁵³ See § 112.

of *Pure reason* dealing with the “History of pure reason”. If science is interpreted as a necessary and objective discourse, any anchoring of science in empirical situations – individuals or contexts – should be considered as contingent. If such is the case, it becomes almost impossible to understand either how individuals, tied up in their empirical situations, can reach a domain so remote, or how science itself can undergo historical development rather than be given as whole, once and for all. Cassirer took up the gauntlet by leaving aside the artificial opposition between necessity and contingency, which creates more difficulties than it resolves, and by making a double move: firstly, he embraced a broader field of vision to take into consideration the semiotic material as a whole in the absence of any preconceived distinction (such as myth as opposed to science for example), and secondly, he also made use of a finer lens in considering science as merely one of many semiotic modalities – i.e. as a typical form, embodied in a very specific discourse and developed through a specific tradition. In so doing, Cassirer preserves both the unity of meaning in general, without introducing artificial oppositions between different types of knowledge, while simultaneously preserving the intrinsic diversity of these types, which appear only as modalities of the whole (myth is clearly opposed to science, at this level).

As far as the specific case of the historical development of science is concerned, Cassirer – from *Substance and Function* to the last volume of the *Problem of Knowledge* – describes a substantive conception (in Antiquity and Medieval times) as opposed to a functional one (in Modern and Contemporary times). I claim that this opposition intersects with the concept of idiomaticity that I wish to highlight. Cassirer gives several examples of how this opposition is effective in order to describe the historical development of science, of which I will examine only one, that of Aristotelian logic.

In the *Philosophy of Symbolic Forms*, Cassirer remarks that the Aristotelian logical categories (‘substance’, ‘quantity’, ‘quality’, ‘time’, ‘space’, etc.) implicitly depend on the idiomaticity of Greek⁵⁴:

“Through the category of substance the grammatical meaning of ‘substantive’ unveils itself; in quality and quantity, in ‘when?’ and ‘where’ the meaning of the adjective and the adverbs of time and space is clearly apparent – particularly the last four categories, *poiein*, *paskhein*, *ekhein* and *keisthai* seem to become entirely clear when they are retraced to certain fundamental distinctions that Greek uses to designate the verb and verbal action.”

⁵⁴ Cassirer, *The Philosophy of Symbolic Forms*, vol 1: Language, Yale University Press, New Haven, 1953, 126-127. See also É. Benveniste, “Catégorie de langue, catégorie de pensée” in *Problèmes de linguistique générale*, Gallimard, Paris, 1976:63-74.

Naturally, it is only once one has distanced oneself from the implicit dominion of Greek over logical categories that this dominion becomes explicit. In the case of science (as opposed to myth, whose elucidation of idiomaticity is based on narrative), the process of making this relationship explicit is dependent on the use of other languages in which linguistic and logical categories are not related in the same way. Today, linguistic research supports the idea that the relationship between linguistic and logical categories is much more entrenched than was thought at the time of Cassirer. His interpretation has been called into question, for instance when it was noticed that the Indo-European theme *k^w (found both in indefinite, relative and interrogative prepositions, spelt *Qu-* or *Wh-* in modern Indo-European languages) is not specific to Greek but is common to all languages of the same family and may also occur elsewhere⁵⁵. But this remark does not fundamentally affect the foundations of Cassirer's position, since it only broadens its span to cover a larger linguistic spectrum, without calling into question the implicit relationship between language and logic that Cassirer unveiled. In this respect, Cassirer's remarks are still valid, even if the concepts of "(classical) Greek" or even of "Aristotelian" logic now come across as being too narrow.

In any case, what is philosophically at stake is the fact that idiomaticity is present even in science (logic, in this instance) and that a process leading from the implicit to the explicit explains why a historical development is at work in science. This process can be described using Cassirer's opposition between substance and function: the relationship between linguistic and logical categories is still implicit when the logical categories are taken for granted, as if they were naturally given as absolute ways of describing phenomena, the latter also being given as self-evident. The relationship between linguistic and logical categories becomes explicit when it becomes clear that it was originally idiomatic, and therefore that language plays a systematic though hidden role in the process of grasping phenomena through logical categorization. Thus the goal pursued by rationality is not to eradicate this role, but only to make it explicit. Cassirer provides a very precise description of how this clarifying process took place historically, during the Renaissance period. What was at stake then was a change in focus from grammatical categories to the concept of form, i.e. from a logic grounded in a predetermined ontology to an aesthetic judgment, as the radical transformation of aesthetic forms at the Renaissance period amply shows. More precisely, instead of sticking to the professorial seriousness of the scholastics, it is through humour that this change in form became possible⁵⁶. The theory of Platonic forms plays a dual role in this context: not only do

⁵⁵ See P. Le Goffic, "Les classes morphosyntaxiques de l'indéfini; Indéfinis, interrogatifs, relatifs (termes en *Qu-*) : parcours avec ou sans issue", *Faits de langue*, 1994, 2, n°4: 31-40)

⁵⁶ Cassirer, *The Platonic Renaissance in England*, Nelson, Edimburgh, 1970, p. 170-172.

the Platonic forms play a grounding epistemological role as they do in all theories of knowledge that lay claim to the Platonic heritage of *Eidos*, but they also play a decisive, though hidden, role in aesthetics by affirming the pre-eminence of geometry⁵⁷.

It would be possible to elaborate on the role that Cassirer bestows on geometry, from Plato and Euclid to the “Erlangen program” devised by Felix Klein which had such a deep impact on Cassirer’s own intellectual development⁵⁸. To do so, however, would mean taking the risk of running short of time, whereas the basic idea that should be borne in mind is sufficiently clear: the inner development of science reveals an unconscious, idiomatic interpretive framework of which the ultimate finality of science is not so much to dispense with as to make conscious.

I shall now focus on the second change in Cassirer’s lexicon that I would like to promote: the concept of transferability in forms.

22. *Transferability in forms*

In the context of the thought experiment I here aim to conduct, the mediating role played by “myth” will, as from now, be replaced by the concept of “transferability”. A form is said to be transferable when it remains identical throughout its transposition to different contexts. I have already mentioned⁵⁹ several instances in Cassirer’s *Philosophy of symbolic forms* where the concept of a transfer is used and it is therefore no artificial import, even from Cassirer’s original viewpoint: “myth”, for example, was described as the force that reroutes the expressive power of language and uses it according to its own narrative goals while “science” does the same with causality, which derives from a mythical source. But the concept of transferability I used in this instance has something of a Gestalt flavour to it, since one of the laws that Gestalt theorist Wertheimer managed to exhibit was that of a “common fate” in organised unities, which maintain themselves as unities in spite of their moving through space. The concept of transferability I wish to use, however, has a broader meaning than the purely spatial acception originally described by Wertheimer, since it is meant to account for the way in which any given unity, whether it possesses spatial properties or not, relies on different contexts to maintain itself as a unity. After idiomaticity, transferability thus comes across as the second moment in the general process of mediation, which is at the core

⁵⁷ Cassirer, „Eidos und Eidolon. Das problem des Schönen und der Kunst in Platons Dialogen“ [1924], p. 137: „Es ist nicht zuviel behauptet, wenn man sagt, daß im Grunde alle systematische Ästhetik, die bisher in der Geschichte der Philosophie aufgetreten ist, Platonismus gewesen und Platonismus geblieben ist.“

⁵⁸ Cassirer, “Reflections on the Concept of Group and the Theory of Perception” (1945), edited and published by P. Verene, in *Symbol, Myth and Culture; Essays and Lectures of Ernst Cassirer 1935-1945*, New Haven and London, Yale University Press, 1979, p. 278-279.

⁵⁹ § 112.

of the *Philosophy of Symbolic forms*. I shall therefore begin by exploring the concept of transferability in myth before showing its relevance in both language and science.

221. Transferability in myth

Transferability in myth takes the form of a causal process that produces reality⁶⁰. Let me clarify this idea by providing a brief outline of the reasoning behind it, however strange it might seem at first to those of us who are accustomed to restricting the concept of cause to its efficient form. Cassirer terms “mythical” the generative power at the core of the linguistic constitution of objects, as the examples of the lexical constitution of ‘*lucna*’ and ‘*men*’ have shown. Such generative power is the content characteristic of mythical thought – not the representation of mythical thought as a process, but the process of mythical thought itself⁶¹, which does not presuppose the existence of objects but produces them linguistically by eliciting a natural or a cultural trait attached to them. This generative process is thus causal in nature, insofar as it produces real objects that were previously inexpressible and almost unperceivable⁶². Causality as a concept is therefore semiotic in origin, and first emerges by relating phonetically similar words to one another⁶³: in the myth of Deucalion and Pyrrha for example, there is a phonetic contiguity between the names *laios* and *lâas*, and this contiguity is powerful enough to introduce a causal relationship between the two objects based on the metamorphosis of one into the other (the stones becoming human beings). From this perspective, the mythical narrative offers a typical oscillation between metonymy and metaphor: the relationship between the two words is metonymic, since it is based on contiguity on a phonetic level, but on a causal level it is metaphoric, since the concept of stone is supposed to be transformed into that of man. Mythical narration is therefore a causal process of metamorphosis that produces the world by exploring the metonymical and metaphorical dimensions of language⁶⁴.

⁶⁰ Cassirer, *The Philosophy of Symbolic Forms*, vol. 2, p. 43: “Mythical thinking is by no means lacking in the universal category of cause and effect, which is in a sense one of its very fundamentals.”

⁶¹ Cassirer, *The Philosophy of Symbolic Forms*, vol. 2, p. 229: “The priest who sacrifices before sunrise causes the sun to appear, to be born.”

⁶² Cassirer, *The Philosophy of Symbolic Forms*, vol. 2, p. 41: “The name of a *god* above all constitutes a real part of his essence and efficacy. It designates the sphere of energies within which each deity is and acts.”

⁶³ Cassirer, *The Philosophy of Symbolic Forms*, vol. 2, p. 45: “The principles of *post hoc, ergo propter hoc* and *juxta hoc, propter hoc* are characteristic of mythical thinking”

⁶⁴ That is also why Cassirer does not establish an opposition between myth and rite/ritual, as it is so often the case in anthropological discourse, for narration applies equally to myth as a discourse and to ritual as a practice: “In this sense the cult becomes a vehicle of all cultural development, for it fixates the very factor by which culture differs from all purely technical mastery of nature and by which it evinces its specific, peculiarly spiritual character.” Ernst Cassirer, *The Philosophy of Symbolic Forms*, vol. 2, p. 204.

The oscillation between metonymy and metaphor in mythical narratives was later developed by structural narratology⁶⁵ as well as by psychoanalysis⁶⁶. I shall not delve further into this matter owing to lack of space, and shall merely point out in passing that contemporary works in semiotics⁶⁷ have pursued the same train of thought and have traced the oscillation between metonymy and metaphor in mythical discourse back to Cassirer while trying to establish that this oscillation also governs the causality of sacrifice, which, along with prayer, is one of the two main aspects of ritual activity according to Cassirer⁶⁸. Cassirer, after many other anthropologists of religion, pointed out that the concept of sacrifice harboured a conflict between the sacrifice addressed to the god on the one hand and the god as the very entity to be sacrificed on the other. What contemporary semiotics tries to assess is to what extent this ambiguity can be related to the semiotic oscillation between metonymy and metaphor that was first discovered in Cassirer's work on myth: the sacrifice addressed to the god is therefore interpreted as placing humanity and the gods in two different but contiguous locations (as in a metonymy) whereas the sacrifice of the god implies that god and humanity are identified (as in a metaphor). Although it would take up too much space to explore this interpretive framework in further detail, we can adopt the guiding hypothesis that what Cassirer views as the heart of religion⁶⁹ is also governed by semiotic principles.

One could object to this analysis that the mythical origin of causality has long been overcome by a more sophisticated approach, which does not conflate phonetic contiguity with material causality. And this, of course, has been the case ever since the divorce between natural language and myth, on the one hand and science on the other, became an issue for the constitution of science itself, first during Classical Antiquity and then during the Renaissance period: it is by severing ties with the causality of myth that science establishes itself as a separate domain. But one point should nevertheless be emphasized: the scientific approach to causality is itself semiotic, and Cassirer makes this point quite clear, for instance, when evaluating the epistemological conundrum sparked by the emergence of quantum mechanics: causality is a principle of global coherence in physics⁷⁰, and it is this global coherence that

⁶⁵ R. Jakobson & C. Lévi-Strauss, "« Les chats » de Charles Baudelaire", *L'Homme*, 1962, vol 2, n°1: 5-21.

⁶⁶ G. Rosolato, "Destin du signifiant", pp. 23-62 and "Le symbole comme formation", p. 100-120 in *Éléments de l'interprétation*, Gallimard, Paris, 1985.

⁶⁷ C. Zilberberg, "Aspects du mythe dans la Philosophie des formes symboliques de Cassirer".

⁶⁸ Cassirer, *The Philosophy of Symbolic Forms*, vol. 2, p. 229.

⁶⁹ And which was previously considered to be the heart of the anthropology of religion (Frazer, *The Golden Bough*, vol. 4, part III *The dying god*) and after (A. Hocart, *Social origins*, Watts, London, 1954) Cassirer's work.

⁷⁰ The principle of causality does not appear as such in theorems of physics; cf. Ernst Cassirer, *Determinism and Indeterminism in Modern Physics; Historical and Systematic Studies of the Problem of Causality*, Yale University Press, New Haven, 1956, p. 61.

ensures physics in general, whatever its frame of reference, of a valid meaning. Causality is therefore subject to the same type of evolution as that which can be found in a symbolic form: its semiotic coherence diversifies into several trends, of which myth and science are the two main examples.

222. *Transferability in language*

Transferability in language draws on metaphor as its primary resource. But metaphor, as a process by which a meaning maintains its core value throughout different semantic domains, can be understood in two different ways, as Cassirer points out in *Language and Myth*⁷¹: either the semantic domains that are merged through metaphor are already determined and categorized as such, or else they are retrospectively circumscribed by the metaphoric process itself.

In the first case, metaphor comes across as only a kind of decorative by-product in the formulation of meaning: a word is supposed to secure a “primary”, supposedly more practical meaning, and, through metaphor, to acquire, a variety of “secondary” ones that are only “as if” meanings. In the sentence: “Jean is such an old bear”, the subject is not supposed to be identified as a “real” bear, i.e. the plantigrade and hibernating mammal we (or at least most of us) are only very vaguely acquainted with. But in that case, the fact that we do not identify the subject as a bear – in contrast with what the sentence explicitly says – requires a highly tortuous theory of how the distinction between “real” and “as if” meanings can be introduced, usually by referring to non-linguistic, pragmatic “contexts”⁷².

In the second case, no *a priori* distinction between a real meaning on the one hand and mere “as if” meanings on the other is required, since meaning is not pre-determined by any specific semantic domain, “real” or not. What does a sentence like “Jean is such an old bear” suggest? Merely a certain way of *remaining rough* which is to be found in anything this quality can be attached to: an animal, a human being and even a text, since in the technical French of publishers, an ‘ours’ is a work that remains unpublished! Once this very basic quality is perceived in ‘ours’, we can also see how it percolates various semantic domains that were not pre-conceived (for what could have they been preconceived with, if no words were at hand?). It is therefore the most idiomatic forms in language that make metaphors possible, for idiomaticity should be understood as a way of gaining access to an indefinite range of

⁷¹ Cassirer, *Language and Myth*, Harper & Brothers, New York, 1946, p. , p. 98.

⁷² For a review, see P. Cadiot, "Métaphore prédicative nominale et motifs lexicaux", *Langue française*, 2002, Volume 134, Numéro 134, p. 38-57.

situations through a specific qualitative point of view. As Cassirer repeatedly remarked⁷³, it is not by underlining the logical difference between genus and species that a word is coined, but by focusing on a natural or cultural trait that makes a quality pertaining to a situation worth expressing. Furthermore, it is precisely for this reason that metaphor is not a decorative device that can be used to vary the expression of an independently given meaning, since using a metaphor is not a matter of wording but of discovering ways of bringing new situations within the reach of language. Taking metaphor seriously therefore encourages us to dispense with any semantic theory built on an *a priori* distinction between real and fictitious meaning and on predetermined categories of objects, since such theories ultimately rely on pragmatic considerations that cannot fully account for the intrinsic power of meaning itself, which is in evidence way before the drawing of the ontological distinction between reality and fiction or the establishment of specific logical categories of objects. From a textual point of view, metaphor should therefore be conceived of as a way of highlighting the inner power of idiomatic configurations that in and of themselves can generate semantic fields, which in turn can be narratively exploited. It is precisely this intrinsic power that Cassirer describes as the mythological power of language.

223. *Transferability in science*

Science seems to have developed specific tools to make transferability possible and Cassirer focused much of his own epistemological work on the exploration of one of these tools: the mathematical function, the emergence of which during the early modern period completely renewed our scientific outlook. A function in the mathematical sense is not merely the conjunction of elements that have a common resemblance, like the concept of ‘species’ in Aristotelian and Medieval science, but is a specific rule that governs the succession of elements⁷⁴. From the perspective of a mathematical function, the process of “abstraction”, as first described by Aristotle in his *Analytics*, is completely dispensed with: elements can be grouped together not because of their common empirical shape, but by virtue of belonging to the same series generated by a rule. The concept of a mathematical function is therefore the

⁷³ Ernst Cassirer, *The Philosophy of Symbolic Forms*, vol. 1, p. 283: “Before language can proceed to the generalizing and subsuming form of the concept, it requires another, purely *qualifying* type of concept formation. Here a thing is not named from the standpoint of the genus to which it belongs, but on the basis of some particular *property* which is apprehended in a total intuitive content.”

⁷⁴ Ernst Cassirer, *Substance and Function*, The Open Court Publishing Company, Chicago, 1923, p. 28-29: “What makes the conjunction of the members of a series possible is that in every case the operation of a law of correspondence has a general value and constitutes a rule of uninterrupted succession. [...]. Therefore, the specificity of the conceptual content cannot be said to be “abstracted” from the particular elements of the set insofar as they are understood only if they make us understand the specificity of the rule through which the relation was established; but this doesn’t mean that we would get the rule from them, through a simple summation or a composition of parts.”

basic tool of the scientific attitude named “*mathesis universalis*”, and the question of how mathematical functions can expand *mathesis universalis* to new domains has been with us since the 17th century: is *mathesis universalis* a general theory of transferability perpetually enabling the annexation of new domains by mathematics? Cassirer warns that it would be too simple to think of *mathesis universalis* as an ever-increasing body of knowledge, as this would presuppose that mathematics are already embedded in the reality they endeavour to describe instead of being constructed together with the objects to which they relate. It is therefore necessary to create original mathematics if one wants to expand the point of view of *mathesis universalis*: progress in science never takes the form of a reduction to a pre-existing theory, instead it is always the result of a complete reorganisation in which fragments of knowledge are viewed in the context of a new system of mutual relationships that manifests a higher form of integration.

There are numerous examples of such integrative processes, such as the case of universal Galilean-Newtonian mechanics that form the basis of the theory of movement contrasted with the more specific theory of the electro-magnetic field. Einstein’s theory of relativity is not a reduction of electro-magnetism to mechanics, but a higher synthesis in which the transfer of mechanics to the electro-magnetic field requires the transformation of the concept of absolute measurement of space and time, which, up to Einstein, was only idiomatic⁷⁵. Another example studied at length by Cassirer is the problem of the constancy of perception. Empirical data teach us that a single object should be perceived differently depending on light, angle and distance, yet it is remarkable that such an object is constantly perceived as being the same, however different the perceptive conditions. This empirical fact must be justified in one way or another: how is it possible to consider as identical, objects that appear in such different contexts? As Cassirer pointed out⁷⁶, it is not by referring to reality as being already mathematical, i.e. by supposing that mathematics are actually present in the data despite not being perceptible to us as such, that the constancy of perception can be explained. This was actually the solution advocated by Helmholtz, who even devised the theory of “unconscious inferences” to justify the hypothesis. But if one wants to do justice to perception itself without reducing it to some unconscious mathematical process, the experience of which can be only indirect at best, it becomes necessary to appeal

⁷⁵ Ernst Cassirer, *Einstein’s Theory of Relativity*, The Open Court Publishing Company, Chicago, 1923, p. : 371-372: “The decisive step is taken when it is seen that the measurements, to be gained within a system by definite physical methods of measurement, by the application of fixed measuring-rods and clocks, have no "absolute" meaning fixed once and for all, but that they are dependent on the state of motion of the system and must necessarily result differently according to the latter.”

⁷⁶ Cassirer, “The Concept of Group and the Theory of Perception”, *Philosophy and Phenomenological Research*, vol. 5, n° 1, (1944), p. 18..

simultaneously to new mathematics and to new concepts of perception. This is precisely what occurs in the Gestalt theory of perception, which succeeded in unifying the laws discovered by Wertheimer⁷⁷ and the mathematical theory of groups⁷⁸, thus achieving a new synthesis that effects an extension of the *mathesis universalis* perspective, that does not carry out a reduction of one theory to another that is alleged to be more fundamental, but instead reorganises all previous knowledge by finding new ways of mapping transfers from one domain to another. The epistemological lesson here taught by Cassirer is, of course, very broad in scope, and can be applied to many other instances in the history and philosophy of science.

23. *Pre-establishment in forms*

Let us complete this thought experiment consisting in distancing ourselves to a degree from Cassirer's original lexicon by suggesting a final adjustment that, we hope, will help us to achieve a better understanding of the specific modality of object construction that Cassirer describes as "science" but which, I contend, can also be detected in other symbolic forms. I suggest that what is at stake in what Cassirer calls "science" is not only the specific variety of knowledge directed towards objectivity through proof and experimental procedures, but a wider semiotic framework, which presupposes that meaning is "out there", waiting in some more or less remote location to be collected using relevant methods. The most basic scientific attitude therefore requires one to consider that the existence of the object under scrutiny precedes one's attempts to understand it, i.e. that it is transcendent. This is what I call the "pre-establishment" of the object. As I did before in the case myth, I shall first show that the "pre-establishment" is particularly significant in science before showing that it is nevertheless present in language and in myth also.

231. *Pre-establishment in science*

⁷⁷ These laws describe the collective behaviour of elements as: close in the given field (proximity); morphologically similar (similarity) ; moving in the same way (common destiny) ; these elements allow to continue a line (good continuation) ; a region is all the more united for having no gaps (closure) ; there is a connection between a form and general values present in the organisation of the field (pregnancy).

⁷⁸ Cassirer "The Concept of Group and the Theory of Perception", *Philosophy and Phenomenological Research*, vol. 5, n° 1, (1944), p. 5: "In the following reflections I shall attempt to set forth an inner connection - epistemological in nature - between the mathematical concept of group and certain fundamental problems of the psychology of perception as the latter have been more and more distinctly formulated in the last decades. [...]. Our ultimate aim is to bring out clearly a certain type of concept which has found its clearest expression in abstract creations of modern geometry. But the type in question is not confined to the geometrical domain. It is, on the contrary, of far more general validity and use. The application of concepts of this type extends both farther and deeper. Metaphorically speaking, it extends down to the very roots of perception itself."

What is considered as pre-established in science has to do with the concepts of an “idea” in Antiquity and of a “nature” in Modern times: “idea” and “nature” are therefore the transcendent terms to which the status of being constructed is *a priori* denied. They are therefore considered as the ultimate source of norms, the essence of which should be revealed by science.

However, as Cassirer showed at length by opposing Substance to Function in the history of science, the fact that what lies beyond the reach of construction was conceived differently in Antiquity and in Modern times is an indication that even what is considered as pre-established in science can change over time. In this regard, the very concept of a history of science proves that norms, even where they appear in science, i.e. under their most stabilised form, are also subject to long-term construction.

Science is therefore a symbolic form among others, although the fact that it produces very stable results through time by means of proofs and experiments can and must be taken as a clear manifestation of its specificity as a form of knowledge. But without being critically interpreted, science, like any other form, tends to occupy an absolute, imperialistic position and is therefore inclined to deny being rooted in other symbolic forms, mainly language, myth and technology. In doing so, science takes the risk of unconsciously reproducing a mythical gesture and of ignoring that some of its basic concepts, like that of causality, were rooted in myth prior to their becoming scientifically relevant. Only philosophy, therefore, has the power to critically interpret science, as well as any other form. Philosophy is not, therefore, a symbolic form, for it is only by its mediation that the intrinsic modality of construction specific to each symbolic form can be analysed.

232. *Pre-establishment in language*

In the case of language, we must believe that linguistic meanings exist in some location before we speak (in “English”, in “German” or in any other language considered as a real entity that persists through time) and that the mother tongue each of us speaks has a life of its own, i.e. that it was spoken before us and will be spoken after us down the unbroken chain of generations. Linguistic meanings can therefore be taken at face value. This belief is not an illusion that should be disposed of, as Max Müller used to claim when he described language as a “disease”⁷⁹, for casting doubt on its value assumes that it would be possible to separate what is fictitious from what is real in the construction of meaning. Moreover, this

⁷⁹ Cassirer, *The Philosophy of Symbolic Forms, vol 2: Mythical Thought*, Yale University Press, New Haven, 1955, p. 22, according to Max Müller: “The source and origin of all mythology is linguistic ambivalence, and myth itself is a kind of disease of the mind, having its ultimate root in a “disease of language”.”

dogmatic attitude immediately collapses into its opposite, the relativist attitude, which claims that nothing is ever stable in language, mimicking certainty while denying its relevance. These two opposite yet fundamentally similar attitudes should be questioned together. As shown by the examples given by Cassirer, fiction is at the very heart of the construction of meaning, even if it is only with hindsight that we realise where it lies, when we use another semiotic framework in which fiction also plays a constructive role. We should therefore consent to pay our dues to this belief in the transcendence of meaning, having identified it as a necessary phase in its construction. This involves no mystical attitude: by transcendence of meaning, we refer only to the normative dimension of language, which is governed by rules that nobody has ever decreed yet still seem to belong to the community of speakers. It is with reference to linguistic norms that language is subjected to an ongoing process of evaluation and that the collective adjustment of linguistic behaviours that makes interaction possible can take place. This explains why language can be adapted to later uses related to different and seemingly unforeseen contexts. The pre-establishment of meaning is therefore not devoid of consequences where future interactions are concerned, and comes across as a resource for anticipation.

233. Pre-establishment in myth

No interaction can be limited to a pair of agents, for all interactions occur under the supervision of pre-established mythical actors who seem to live in another time and place and who are not explicitly present. But this is not merely an illusion. These mythical actors play a fundamental role in the very possibility of meaningful interactions: situated at a distance from the action, they nonetheless take an active part in it. The role played by these mythical actors is usually justified by an appeal to narratives that are structurally opaque, flawed and patchy, filled with mythical actors who interfere normatively in the course of the action to demand, advise and forbid. A very basic example is that of monetary interaction: the coin that is exchanged for a commodity is considered as having value because it is guaranteed by a city or a central bank, which is nothing other than a mythical entity that a given community has vested with a status of authority in order to set up an interpretive framework in the context of which the interaction in question is considered legal. In fact, all mythical entities play a part in everyday interactions by staying in the background, in a transcendent position that implies a dimension of space-time distinct from the here and now.

3. Back to the original queries

We began by asking two very basic questions about how to understand the concept of symbolic forms and their mutual relationships. The inner transformation of what is conceived of as a norm makes the relationships between symbolic forms a temporal process. This temporal process takes place within an interpretive framework in which idiomaticity, transferability and pre-establishment are the driving forces: idiomaticity refers to the persistence of a symbolic form through time, transferability refers to the progressive dissemination of a symbolic form through semiotic genres, while pre-establishment refers to the progressive splitting of new symbolic forms according to new aspects of normativity.

Based on the thought experiment we just conducted, we can now try and answer our original questions.

31. Answering basic questions about symbolic forms

As far as the list of symbolic forms is concerned, it appears that however diverse and indeterminate it may be, its analysis should nonetheless always conform to the semiotic threefold structure we just described. Such is for example the case of a symbolic form that was analysed by Cassirer at a later date, that of technology. Idiomaticity in technology should be conceived as a consequence of embodiment and organ projection⁸⁰; transferability in technology can be viewed in the light of linguistic activity⁸¹ and pre-establishment in technology manifests itself as a necessary precondition for the concept of nature to become conscious as a norm⁸².

As for the level of symbolic forms, it can vary from the micro-level of a specific use of signs to the macro-level of history, since what should be preserved is only the semiotic structure that we have described.

⁸⁰ Ernst Cassirer, "Form and Technology" in A. S. Hoel & I. Folkvord (eds), *Ernst Cassirer on Form and Technology, Contemporary Readings*, Palgrave MacMillan, Basingstoke, 2012, p. 33: "The same held for the first and most primitive tools. They too are regarded as 'given from above' as gifts from a god or a saviour. They are worshipped as divine. [...]. The mythical darkness that still surrounds the tool gradually begins to clear to the degree that they are not only used but also, through this very use, continually, transformed."

⁸¹ Ernst Cassirer, "Form and Technology" in A. S. Hoel & I. Folkvord (eds), *Ernst Cassirer on Form and Technology, Contemporary Readings*, Palgrave MacMillan, Basingstoke, 2012, p. 39: "The discovery of new tools represents a transformation, a revolution of the previous types of efficacy and the mode of work itself. Thus, as other thinkers have emphasized, with the advent of sewing machines comes a new way of sewing, with the steel mill a new way of smithing. [...]. Once again, a penetrating analogy appears here between the technological and linguistic function, between 'the mental aspect of the tool' and the tool of the mind'."

⁸² Ernst Cassirer, "Form and Technology" in A. S. Hoel & I. Folkvord (eds), *Ernst Cassirer on Form and Technology, Contemporary Readings*, Palgrave MacMillan, Basingstoke, 2012, p. 39: "Thus, here too, the march of technology is mastered by a universal norm that rules the whole of cultural development. The transition to this norm, however, cannot, of course, take place here, as in the other spheres, without struggle and the sharpest opposition."

32. *Some basic principles for semiotic anthropology*

The debt semiotic anthropology owes to Cassirer makes it possible to clarify what should be understood by a symbolic activity, which is its main topic. An activity is called “symbolic” when its development is controlled by a norm that percolates its style as a whole. This style is expressed in the devising of specific signs whose values form a subject of collective attention and evaluation. Symbolic activities therefore make it possible to anticipate the form taken by activities when they are performed according to norms considered as appropriate. Focusing attention on norms and evaluating their relevance to ongoing activities is therefore the true object of social life. For those who participate in these symbolic activities, the necessity of abiding by norms manifests itself as a requirement that extends beyond their present situation. By extending beyond the situation at hand, the reason why the norm should be followed remains opaque and is assumed to be in the hands of some authorised entities, whether real or mythical. It entails a constant adjustment of behaviours as well as a revising of the values attached to norms and to their potential for being used in future contexts. That is why symbolic activities manifest themselves as a process of expression whereby inherited traditions can be related to original ways of adjusting to new situations.

Conclusion

We can now forget about the thought experiment that was conducted in the preceding pages, the only purpose of which was to reach a better understanding of “language”, “myth” and “science” from the perspective of semiotic anthropology. But the threefold perspective outlined above can also be thought of as a way of introducing the lexical changes favoured by the later Cassirer, who ended up describing the original impulse governing symbolic forms by using three words borrowed from Goethe: “intuition”, “action” and “contemplation”⁸³.

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⁸³ Ernst Cassirer, *The Philosophy of Symbolic Forms*, vol. 4, Yale University Press, 1996, “Basis Phenomena”, p. 167.

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