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THE INFLUENCE OF GESTALT THEORY ON ERNST CASSIRER'S PHENOMENOLOGY OF SYMBOLIC FORMS

ABSTRACT

In the opinion of many scholars the notion of symbolic pregnancy is one of the key concepts in Ernst Cassirer's philosophy of symbolic forms. Without a proper understanding of its conceptual frame Cassirer's philosophy lacks a consistent foundation. The notion symbolic pregnancy offers the mechanism of distinction of symbolic forms. The newest investigations (also in unpublished or less known, neglected writings of the philosopher) has shown that the key-notion of symbolic pregnancy has its roots in Gestalt theory (Gestalt psychology). In this school Cassirer saw the most important example of the general tendency in scientific thought, according to which the primacy of the notion of function has to override the primacy of the notion of substance, the idea of integrated whole as well as the notion of primary elements.

Keywords: Cassirer, symbolic pregnancy, symbolic form, Gestalt theory.

The notion of *symbolic pregnancy* (*Symbolische Pränanz*) is in the opinion of many scholars one of the key concepts in Ernst Cassirer's philosophy of symbolic forms. Without a proper understanding of its conceptual frame Cassirer's philosophy lacks a consistent foundation. The newest investigations (also unpublished, less known or neglected writings of the philosopher) have shown that the key-notion of symbolic pregnancy has its roots in *Gestalt theory* (Gestalt psychology), one of the most important orientations in psychological and philosophical thought of the first two decades of the 20th century.¹ In the fourth

¹ It is worth emphasizing, however, that some scholars pointed out the significance of this concept before *Nachlass* and other important writings regarding pregnancy and Cassirer's phenomenology had been published. One of the pioneering works on Cassirer's philosophy, John Krois's *Symbolic Forms and History*, released in 1987 (New Heaven—London, 52–57), even claimed that “pregnancy” was the cornerstone of his philosophy. Krois in his subsequently published works and articles substantiated this thesis, particularly in those texts which referred to Cassirer's *Nachlass* (Cassirer, E. 1995–2014. *Nachgelassene Manuskripte und Texte*. Köhnke. Krois, J. M.,

volume of his work devoted to the history of the problem of knowledge Cassirer writes:

“The development of scientific knowledge in the nineteenth century may be generally characterized by the fact that it has accorded the ‘idea of the whole’ an ever greater significance. In theoretical physics this idea has led to the primacy of ‘field physics,’ for the field appears as a whole that is not merely to be put together from the separate parts, the electrons, but rather forms the very condition for their existence. In psychology, similarly it demands the transition from a psychology of separate elements to Gestalt psychology.”²

In this school Cassirer sees the most important example of a “general tendency in scientific thought,” according to which the primacy of the idea of *function* has to override the primacy of *substance*, the idea of *integrated whole* and the idea of *primary elements*.³

O. Schwemmer (Eds.), vol. 1–12, Hamburg (hereafter: ECN), 16–18. For further reading, see: Krois J. M. 1988. “Cassirer, Neo-Kantianism and Metaphysics or Problematik, Eigenart und Aktualität in über Ernst Cassirers Philosophie der symbolischen Formen.” In: 1988. *Über Ernst Cassirers Philosophie der symbolischen Formen*. Braun, H.-J., H. Holzhey, E. W. Orth (Eds.). Frankfurt/M.; 1988. *Problematik, Eigenart und Aktualität der Cassirerschen Philosophie der symbolischen Formen*. In: 1988. Braun, H.-J., H. Holzhey, E. W. Orth (Eds.), op. cit. The concept of “symbolic pregnancy” seems surprisingly neglected and omitted in Cassirer’s writings given this is presumably the “key concept” of his philosophy. The important fragment on this topic can be found in one chapter of the third volume of the *Philosophy of Symbolic Forms*, where it is discussed in a more or less coherent manner. However, the most precise wording, which enables us to better understand it, can be found in the paper published in 2011, entitled *Prägnanz, symbolische Ideation* (ECN4, 51–84). The text is clearly unfinished, therefore visibly lacking in consistency and coherency. Nevertheless, even if the text itself still leaves shades of doubt and some unanswered questions, at the same time greatly elucidates and clarifies the concept. It goes without saying that the concept is open to numerous conjectures and various interpretations; its import for Cassirer’s philosophy is still a matter open for discussion due to Cassirer’s rather obscure and ambiguous formulations. A brief guide to the current state of controversy, see Philip Dubach’s article “*Symbolische Prägnanz*”—*Schlüsselbegriff in Ernst Cassirers Philosophie der symbolischen Formen?* See also Orth, E. W. 1988. “Operative Begriffe in Ernst Cassirers Philosophie der symbolischen Formen.” In: 1988. H.-J., H. Holzhey, E. W. Orth (Eds.), op. cit., 45–74.

² Cassirer, E. 1998–2009. *Das Erkenntnisproblem in der Philosophie und Wissenschaft der neueren Zeit*, vol. 4, 246. In: idem. 1998–2009. *Gesammelte Werke. Hamburger Ausgabe*. Recki, B., J. M. Krois (Eds.), vol. 1–26, Hamburg (hereafter: ECW), vol. 5. Woglom, W. H., Ch. W. Hendel (Trans.). In: *The Problem of Knowledge. Philosophy, Science, and History since Hegel*. New Heaven–London, 212–213. In his another paper he writes: “Even contemporary psychology starts from the new concept of a wholeness, just like contemporary physics and chemistry—primarily given data are not the elements of the whole in the Mach’s sense, not isolated colours, tones, scents and different stimuli but totality of those elements, structures,” Cassirer, E. “Probleme der Kulturphilosophie.” In: ECN5, 55.

³ On this topic see particularly: *Substanzbegriff und Funktionsbegriff. Untersuchungen über die Grundfragen der Erkenntniskritik*. In: ECW6.

A crucial moment in the development of Gestalt psychology was the establishing of the Berliner School by Carl Stumpf; the school was deeply connected with the thought of Franz Brentano, Stumpf's teacher. Brentano's concept of psychical acts and intentionality was fundamental for Stumpf, who developed it further in his own phenomenology which inspired also other philosophers, among others Edmund Husserl.⁴ Stumpf was not only a philosopher and psychologist, but also an important musicologist who investigated the perception of music and sound. His students and assistants were Max Wertheimer, Kurt Koffka, Wolfgang Köhler and Kurt Lewin.⁵ This promising development was abruptly interrupted by Hitler's advent to power. Most Stumpf's scholar had to emigrate, among others to the U.S.A.

It is believed that the very concept of Gestalt descends from Goethe, while in the strictly psychological context it can be traced back to the writings of Christian von Ehrenfels (who was Wertheimer's teacher), i.e., to his published book *Über "Gestaltqualitäten"* (1890). This branch of psychological thinking was greatly influenced by Immanuel Kant's philosophy (particularly significant was his theory of system and organism in conjunction with the conception of the schematism of pure reason⁶), Ernst Mach's investigations,⁷ and the theory of colors and morphology and poetry of Johann Wolfgang von Goethe.⁸ In his research Cassirer refers not only to Ehrenfels, Wertheimer, Koffka and other renowned Gestalt theorists but also to the German dictionary by Grimm brothers⁹ and even to the Plato's theory of ideas and ideals.¹⁰

Another student of Stumpf, Kurt Goldstein, neurologist and psychiatrist had an important influence on Cassirer's thought. Goldstein was a cousin and friend of Cassirer, he was born, like Cassirer was, in Breslau, the center in Low-Silesien, at the time under German occupation. He introduced Cassirer to the

⁴ Husserl has dedicated to him his famous *Logical Investigations*. On their relationships see for example: Fiset, D. 2009. "Stumpf and Husserl on Phenomenology and Descriptive Psychology." *Gestalt Theory*, vol. 31, no. 2, 175–190.

⁵ More on this topic can be found in: Toccafondi, F. 2009. "Stumpf and Gestalt Psychology: Relations and Differences." *Gestalt Theory*, vol. 31, 2, 191–211; and: Bonacchi, S. 2009. "Carl Stumpf: Leben, Werk und Wirkung." *Gestalt Theory*, vol. 31, 2, 101–114.

⁶ Cf. for example: Kant, I. *Kritik der reinen Vernunft*, A832/B860.

⁷ See: Mach, E. 1886. *Beiträge zur Analyse der Empfindungen*. Jena. More on this topic in: Mulligan, K., B. Smith. 1988. "Mach and Ehrenfels: the Foundations of Gestalt Theory." In: *Foundations of Gestalt Theory*. Smith, B. (Ed.). Munich–Vienna.

⁸ See: Goethe, von, J. W. *Zur Farbenlehre*; various editions are available, in conjunction with his frequently adduced in the context of Gestalt psychology fragment from *Faust* (First part, verses 1949–1954). See also: idem. 1948. "Zur Morfologie." In: *Goethes Werke*. Hamburger Ausgabe in 14 Bänden, vol. 13, Hamburg, 54.

⁹ Compare: 1961 (1854). *Deutsches Wörterbuch von Jacob und Wilhelm Grimm*, 16 vol., (<http://woerterbuchnetz.de/DWB/> - 08.04.2014).

¹⁰ Cassirer, E. *Eidos und Eidolon. Das Problem des Schönen und der Kunst in Platons Dialogen*. In: ECW16.

Gestalt principles.¹¹ In his neurophysiological research Goldstein developed a holistic conception of the brain. He showed how damaged places in the brain could be substituted in their function with other healthy ones. Goldstein extended this vision to the organism as an integrated whole, as functional complex which can preserve its functionality even though single organs are damaged. He introduced the notion of *Selbstverwirklichung* (self-realization) as the natural tendency of every organism to get into relation with its environment in the way which is appropriate for the realization of its essence. The realization of the essence is based on the *principle of pregnancy*, which permits the optimal realization of the individuality and specificity of an organism and to maintain its balance and relative persistence.

Together with Adhemar Gelb, Goldstein conducted some important investigation on aphasia. They distinguished between “concrete” and “categorical attitude.” The “concrete attitude” is typical for the behavior of people affected by aphasia, and it is based on situations which were concretely experienced. The “categorical attitude” is typical for the behavior of “healthy” people, it permits to have representations of the world on the base of an abstraction processes which go behind the concrete, experienced situation.¹² Cassirer referred to this distinction many times in the third volume of his *Philosophy of Symbolic Forms*.¹³ The “concrete attitude” corresponds in Cassirer’s “pathology of the symbolic conscience”¹⁴ with the attitude related to the *perception of the expression* (*Ausdruckswahrnehmung*), while the “categorical attitude” corresponds to the perception of things (*Dingwahrnehmung*), e.g. to the factual perception, which is the kind of perception we have to do with when we refer to an experienced situation abstracting from it and reconstructing objective relations.

The *principle of pregnancy* (good Gestalt) defines the case in which we perceive a given object or situation according to its optimal form. Consciousness under the pregnancy rule strives for apprehension of the sensory data in the most perfect way under initial conditions of the most complete, steady, symmet-

¹¹ More on their friendly relationship can be found in: Simmel, M. L. (Ed.). 1968. *Kurt Goldstein, 1878–1965, The Reach of the Mind: Essays in Memory of Kurt Goldstein*. New York. See also Krois, J. M. *Ernst Cassirer 1874–1945. Eine Kurzbiografie*. In: ECN16, XXI; and relevant correspondence between two friends contained within this volume who apart from sharing typical news regarding their daily activities exchange some interesting ideas on urgent scientific matters. See particularly: *Ernst Cassirer an Kurt Goldstein, 24. März 1925* and *Ernst Cassirer an Kurt Goldstein, 25. März 1925*. Both letters in ECN18, 79–94.

¹² Gelb, A., K. Goldstein. 1920. *Psychologische Analysen hirnpathologischer Fälle*. Leipzig. See also: Piłat, R. 1993. *Czy istnieje świadomość?* Warszawa, 16–20.

¹³ See for example: Cassirer, E. 1923–1929. *Philosophie der symbolischen Formen* (hereafter: PSF), vol. 3. In: ECW13, 322–323; see also: PSF3, 275–276. His research inspired not only Cassirer but at the same time Aron Gurwitsch. See: Gurwitsch, A. 1929. “Phänomenologie der Thematik und des reinen Ich.” In: idem. *Studien über Beziehungen von Gestalttheorie und Phänomenologie*, 278–381. On relations between Goldstein’s and Gurwitsch’ investigations see for example: Krois, J. M. 1988. op. cit.; Piłat, R. 1993. op. cit.

¹⁴ PSF3, 233–322.

rical and uniform form. The pregnancy laws regulate structure principles and grouping, according to the fundamental rules of: proximity, similarity, closure, symmetry, common fate, continuity, good Gestalt, past experience. Those features enable the idealization of the sensory stimuli and recognition of the shapes of geometrical figures, such as circle, rectangle, triangle or ellipse even if the direct sensuous perception bears only remote similarity to those figures. In one of his works Wertheimer writes:

“... experiments clearly prove that this is how things are, that we can detect constant tendency to right (*prägnant*) configuration. If during the tachistoscopic research there is an angle given, then even if there is a difference between the right angle and the shown one, the observer more often than not sees it correctly, substituting the right (*prägnant*) one for the perceived one.”¹⁵

Gestalt researchers (Koffka and Wertheimer) pointed out that pregnancy laws are the reason why we perceive our world as a unitary one; they are the base of esthetic perception and esthetic experience. Pregnancy is thus a tendency of the perceived data to assume “the most appropriate form.” Koffka writes: “... from myriads of possibilities that perception can be organized, the way that something is perceived now manifests a tendency to assume the best, simplest and most stable form.”¹⁶ The possible “economy” of the perceived form goes hand in hand with strong striving to obtain the full “characteristicness” of a given phenomenon. According to Wertheimer, the phenomenological experience is therefore an experience that in an utterly “natural” and unconstrained way establishes and organizes perceived content in a cognitive field, divides it into particular parts and builds some unities according to the certain rules of the organization of perception.

The reason of interest of Cassirer for the Gestalt thought is to be seen in the fundamental coincidence/congruence of this theory with his philosophical thought. Gestalt theory delivered an experimental base and demonstration of the validity of the fundamental assumption of the *transcendental idealism*, according to which complexity is intended in the critical philosophy as “systematic unity.” The Gestalt theory proposes conceptual assumptions which are absolutely different from the associationism: where the second underline the primacy of the parts and the elements, the first underline the primacy of the whole on the elements that compose it. For Cassirer this fundamental assumption is the central question in a wider theory of knowledge, as he writes: “the crucial question always remains whether we seek to understand the function by the structure or

¹⁵ Wertheimer, M. 1923. “*Untersuchungen zur Lehre der Gestalt II.*” *Psychologische Forschung*, 4, 318.

¹⁶ Koffka, K. 1935. *Principles of Gestalt Psychology*. New York, 138.

the structure by the function, which one we choose to ‘base’ upon the other.”¹⁷ His answer is in accordance with the “fundamental principle of critical thinking, the principle of the ‘primacy’ of the function over the object.”¹⁸

In the third volume of the *Philosophy of Symbolic Forms* Cassirer raises the problem of perception. The whole volume is mainly dedicated to problems of theory of knowledge, particularly to perception, representation and pure meaning, which are the basis for the fundamental functions of symbolic activity. In this volume there is a clear retreat from epistemological issues understood as domain of *logic* in the sense of the Marburg School, to a *phenomenology* of knowledge, and therefore towards the phenomena in which knowledge manifest itself. Cassirer’s phenomenology is directed to the forms of sensuality in which the process of “symbolic forming” takes place, so not it is directed not only to conceptual activity, but also to perception. It aims to define the basic functions which provide a “unitary connection” of various forms of sense, in which spiritual activity manifest itself.¹⁹

In relation to Husserl’s phenomenology and also to Natorp’s critical psychology, Cassirer sees in the fields of phenomena and of logic the possibility to discover the structure of the phenomenon which is subject to similar “functional” rules as the subject or the concept, and therefore elements of logic. The phenomenon is never detached from the whole sensory experience, and in its external structure it is never “a simple aggregate of sensory data, derivative representations and experiences related to the act of making judgments or feeling.”²⁰ The phenomenon, just like the object or concept, is not the *aggregate* of its parts, but is a *system*, in which the elements are linked together according to a given cognitive aim. The phenomenon is the starting point of knowledge, first logically “given,” and in relation to it we can reconstruct a subject and construct an object of cognition. It is “given” in perception and the process of “symbolic forming” in all its stages.

“On the first level—Cassirer writes—perception is simply present in some quality—is ‘contained’ within it as a simple ‘impression’—the higher we reach the more this purely sensory fundament is encased with significant references, becomes ‘saturated’ with the meaningful nuances—‘says’ something. This is how gradually language and grammar is developed—logos of the world of perceptions.”²¹

¹⁷ PSF1, 8. English edition: 1953. *The Philosophy of Symbolic Forms*, Manheim, R. (Trans.), vol. 1. New Heaven, 16.

¹⁸ Ibid., 9. English edition: 1953. *The Philosophy of Symbolic Forms*, vol. 1, op. cit., 17.

¹⁹ “Already in the sphere of the sensory perception—Cassirer writes in one of his recently published manuscripts—one can notice that the path of development is marked by the transition from pure ‘being’ of sensuous perception to its ‘meaning,’ that the perception fills up gradually with meaningful content,” Cassirer, E. *Präsentation und Repräsentation*. In: ECN4, 3.

²⁰ Cassirer, E. *Zur Logik des Symbolbegriffs*. In: ECW22, 131.

²¹ Cassirer, E. *Präsentation und Repräsentation*. In: ECN4, 3.

In contrast to the empiricist conception we have here never to deal with some simple “sensory qualities” which serve as starting point of knowledge, because directly given. The starting point may not be as in the English empiricism “simple sensory qualities.” Phenomena are not a collection of primary sensory data and secondary psychological processes linking them at the mental level, thereby giving them a certain psychological quality. No phenomenon manifests itself in isolation, we are always dealing with a system of phenomena which is not merely the sum of its individual parts, but every single part assumes in it its proper place and proper function, which determines its degree of objectivity.

In Cassirer's *Phenomenology of Knowledge* we can find the following definition of “symbolic pregnancy,” which is clearly derived by the Gestalt theory:

“By symbolic pregnancy we mean the way in which a perception as a sensory experience contains at the same time a certain non-intuitive meaning which it immediately and concretely represents. Here we are not dealing with bare perceptive data, on which some sort of apperceptive acts are later grafted, through which they are interpreted, judged, transformed. Rather, it is the perception itself which by virtue of its own immanent organization, takes on a kind of spiritual articulation—which, being ordered in itself, also belonging to a determinate order of meaning. In its full actuality, its living totality, it is at the same time a life ‘in’ meaning. It is not only subsequently received into this sphere but is, one might say, born into it. It is this ideal interwovenness, this relatedness of the total single perceptive phenomenon, given here and now, to a characteristic total meaning that the term ‘pregnancy’ is meant to designate.”²²

Symbolic pregnancy, sometimes used by Cassirer interchangeably with the term “symbolic ideation,” is a *function of consciousness*, which not so much “constructs” meaning on the content of perception, but somehow “brings it out” from these contents. “Every perception ‘talks’ and signifies not only itself but certain kind of ‘wholeness’ (*Totalität*), [wholeness] that is, so to say, contained within it—and it is its pregnancy that belongs *necessarily to its nature*.”²³

Every perception is thus pregnant of the whole, of the whole of meaning, which does not belong to the perception itself, nor it is applied secondarily on insignificant items, but it is somehow contained therein as the potentiality of developing it into a whole. It is always recognized as a phenomenon, as part of a whole. This is best seen again on the example of the aesthetic field, where, because of its essence, we rely primarily on perceptions. But Cassirer describes this function of consciousness using the example from mathematics as follows:

²² PSF3, 231. English edition: 1957. *The Philosophy of Symbolic Forms*. Manheim, R. (Trans.), vol. 3, New Heaven, 202.

“The consciousness of the moment contains reference to temporal succession; the consciousness of a single point in space contains reference to space as the sum and totality of all possible designations of position; and there are countless analogous relations through which the form of the whole is expressed in the consciousness of the particular. The ‘integral’ of consciousness is constructed not from the sum of its sensuous elements (*a, b, c, d ...*), but from the totality, as it were, of its differentials of relation and form (*dr1, dr2, dr3 ...*). The full actuality of consciousness is merely the unfolding of what was present as ‘potency’ and general possibility in each of its separate factors.”²⁴

Cassirer’s aim is to show how in the structure of perception some contents, being the objects of consciousness (some conscious contents), are filled with very diverse functions of sense, which allow their understanding through the incarnation in a whole of sense. In this conception, the form, which gives meaning, is in no way a transcendent one, which is beyond a hypothetical multiplicity of data without form and sense, but it is in the data (source) itself of the perception, in analogy to the Kantian model of cognition, where one can distinguish a *set of invariants* which guarantees the objectivity of phenomenon. In perception are already present its reference time, spatial, causal and factual references, shaping the perception in an immanent way. Each individual phenomenon includes in itself a tendency which is determined by the conditions of perception and the system of objective references towards getting the optimal form, which allows it to include it in the context of experience understood as a system of objective knowledge.

The objectivity of the phenomenon, as every other object in Cassirer’s logic, is the result of the immersion in a structure, in a system. It presents many degrees, depending on the quantity and complexity of its relations, therefore, on the strength and the type of influence. Hence, we can identify this objectivity of the phenomenon with symbolic pregnancy, as pregnancy through the meaning and, therefore, through a system of possible meaningful relationships.

“It is participation in [a theoretical] structure that gives to the phenomenon its objective reality and determinacy. The symbolic pregnancy that it gains detracts in no way from its concrete abundance; but it does provide a guarantee that this abundance will not simply dissipate itself, but will round itself into a stable, self-contained form.”²⁵

According to Cassirer, forms of giving meaning are not “before” the content, but “in” the content. In his relational conception, consciousness creates the

²³ Cassirer, E. *Präsentation und Repräsentation*. In: ECN4, 7.

²⁴ PSF1, 38–39. English edition: *The Philosophy of Symbolic Forms*, vol. 1, op. cit., 48.

²⁵ PSF3, 233. English edition: *The Philosophy of Symbolic Forms*, vol. 3, op. cit., 204.

poles “objective” and “subjective,” or—in this case—*presentation* and *representation*. The primary function of consciousness is the very symbolic function, which adopts various forms depending on the fields of symbolic meaning to which it is oriented; this orientation character is “pregnancy.” Pregnancy is defined by Cassirer as “real ‘*a priori*’” (*echtes “Apriori”*), as that, which is essentially primarily given (*wesensmäßig Erstes*).²⁶ Here, at the phenomenal level all symbolic forms—qualitative and modal ones—have their source.²⁷

The act of grasping what is individually in terms of its objective meaning, so ordering according qualitative forms such as space, time, causality and thing, delivers for the ordered elements “a specific directional meaning,” “a vector, as it were, pointing to a determinate goal.”²⁸ This orientation towards a whole definition and significance filling does not consist in the usual synthesis of ordering and being ordered, in which are created ready objects or concepts, but it consist in a “symbolic pregnancy”—meaning pregnancy, which forms a certain vector of potency, defining the possibilities of creating sense.

In this concept (“symbolic pregnancy”) we receive the mechanism of distinction of symbolic forms. We can distinguish their quality and modality in the same manner as in the case of the very concept of symbol. In the recently published manuscripts, Cassirer puts it as follows referring to the Gestalt psychology:

From the standpoint of Gestalt psychology and the notion of “gestalt quality” (*Gestaltqualität*) it can be explained away that every single form’s shaping (*Gestaltung*) refers to the specific type of pregnancy—thus there exists spatial and temporal pregnancy, as well as theoretical and aesthetic.²⁹

The diversity of these “directions,” “vectors” or “dimensions” of sense determines the diversity of areas of recognizing meanings, or “regions of sense.”³⁰ We have therefore theoretical and aesthetic pregnancy, within the knowledge of the theoretical pregnancy “time” (*zeitliche Prägnanz*), spatial (*raumliche Prägnanz*) and factual (*Ding-Prägnanz*) or properties-related pregnancy (*Eigenschafts-Prägnanz*). Cassirer tries to demonstrate that the distribution of modalities of symbolic forms is not an artificial one, which is imposed from outside, but stems from the inherent structure of the perception. On the other hand, only

²⁶ PSF3, 231.

²⁷ Cassirer writes: “When we determine the specific unity of meaning as something that comes first, what does not require explanation because the very ‘possibility of explanation’ is contained and presumed within it—then the mystery of the symbolic pregnancy of the part immediately dissolves—because this ‘pregnancy’ to some extent marks the origin of the part, points at its ‘lineage,’ stemming from some predetermined sphere of sense.” Cassirer, E. *Prägnanz, symbolische Ideation*. In: ECN4, 83.

²⁸ PSF3, 232; English edition: PSF, vol. 3, op. cit., 203.

²⁹ Cassirer, E. *Prägnanz, symbolische Ideation*. In: ECN4, 52.

³⁰ *Ibid.*, 62.

in relation to the symbolic function of pregnancy we can see exactly, that the same distribution of forms in qualitative and modal ones is abstract, it is just for a proper conceptualization of diversity and multiplicity of symbolic forming. There is no time, which would not be a mythical, scientific or historical one, such a space, which would not be artistic, mythical, or religious one, and so on. A perceived phenomenon is pregnant at the same time on the base of quality (founding its objectivity) and modality (founding its meaning), as it is the result of these elements.

Explaining the main assumptions of his conception of perception, Cassirer refers to psychology, what is evident, but he also takes some analogies from other fields of science. Specific examples of his idea of the structure of knowledge are taken for example from electromagnetic field theory, Einstein's theory of relativity, Uexküll's concept of the development of natural forms, and, of course, theories he mentioned earlier that he considers to be models for explaining the development of various symbolic forms—Humboldt's theory for language, Weber's theory for religion, Wölfflin's theory for art, Gestalt theory for psychology and so on. Cassirer refers to Gestalt theory for his explaining Felix Klein's theory of geometric theory, in which he sees the confirmation and justification of a "general tendency of thought" based on his notion of symbolic pregnancy. In Klein's conception Cassirer finds a "the intermediary link between the logical system of geometrical concepts and the phenomenology of sense perception."³¹

Phenomenological experience is dependent on the relationship with the environment, on the other hand, we observe that despite the change of environment or the conditions, perception can be distinguished according to the perceived diversities, like as properties which remain unchanged—as a *system of invariants*—and a *system of "group of transformations"*.³² The reference to Felix Klein's mathematical theory of groups, as a creator of a system of invariants which enables combining different geometries—Euclidean and non-Euclidean ones—has to show the possibility of mutual interrelation of various forms and levels of perception. According to Klein's "Erlangen program" (1872),³³ the distinguishing factor of each geometry is a group of transformations that do not change it. "Geometrical properties—Klein writes in his text which initiated the Erlangen program—are characterized by the invariance of the transformations of the main group."³⁴ The program had to provide the general basis for all

³¹ Cassirer, E. *The Concept of Group and the Theory of Perception*. In: ECW24, 215. An interesting detail: the text was translated by Aron Gurwitsch. See also: Cassirer, E. 1979. "Reflections on the Concept of Group and the Theory of Perception." In: idem. *Symbol, Myth, and Culture. Essays and Lectures of Ernst Cassirer 1935–1945*. Verene, D. Ph. (Ed., Trans.). New Heaven—London, 271–298.

³² Cassirer, E. 1979, op. cit., 285.

³³ The inaugural lecture held by Klein in Erlangen in 1872 was later published as: Klein, F. 1872. *Vergleichende Betrachtungen über neuere geometrische Forschungen*. Erlangen.

³⁴ Ibid., 7.

possible geometries as possible forms of recognition of space, differentiated by those properties which remain unchanged even in relation to certain groups of transformations. These properties constitute an appropriate object of study and the system of these properties defines the investigated manifoldness: "Given a manifoldness and a group of transformations of the same—so Klein formulate the main assumptions of his program—to investigate the configurations belonging to the manifoldness with regard to such properties as are not altered by the transformations of the group."³⁵ The characteristic properties of diversity are not, in a general philosophical sense, defined as elements constituting this diversity, but as a "group," to which this diversity is referred to. The system of invariants which allows transformation groups on the base of different geometries presents, according to Cassirer, a perfect example of mutual reference of various forms of knowledge, especially of forms of sensory perception. The individuation of such a system of invariants in the perception was one of the main tasks of Gestalt psychology and was associated with the problem of "perceptual constancy" (*Wahrnehmungskonstanz*). Cassirer illustrates this concept through the quotation of the works of researchers (psychologists and physiologists), like Helmholtz, Kries, Hering, Buehler, up to Gelb, who in his work *Die "Farbenkonstanz" der Sehdinge* gives a number of examples of the perception of color constancy in changing light conditions. White paper is white in both bright sunlight and under a cloudy sky, the colors of perceived objects do not change depending on whether or on if they are viewed in daylight or in the "red-yellow light of a gas lamp."³⁶ Even simple sensory perception contains a structural element, which does not change by "a certain group of transformations."

The concepts of organization coordination, proportion, symmetry and synthesis constitute the very essence of sensory perception. The findings made in Gelb's or Hering's experiments find their confirmation in Köhler's work:

"... characteristic for phenomenal forms are their specific properties that persist even when the fundamental data (*Gegebenheiten*) that make for a basis of those properties are subject to thorough transformations of a specific kind. Melody, in which every note has been relatively transformed in the same manner, does not change in its essence, an optical figure remains the same even when moved to other place with scale changed, under the condition that the proportions remain intact."³⁷

³⁵ Ibid. 8.

³⁶ Gelb, A. 1929. "Die 'Farbenkonstanz' der Sehdinge." In: *Handbuch der normalen und pathologischen Physiologie. Mit Berücksichtigung der experimentellen Pharmakologie*, Bethe, A. Th. J. (Ed.), vol. XIII, Berlin 1929, 596. Similar experiments leading basically to the identical results were conducted by Ewald Hering and were described in his: 1925. *Grundzüge der Lehre vom Lichtsinn*. In: *Handbuch der gesamten Augenheilkunde*, Th. Axenfeld, A. Elschnig (Eds.), vol. III: *Physiologische Optik*. Berlin, 8, 13.

³⁷ Köhler, W. 1929. *Die physischen Gestalten in Ruhe und im stationären Zustand. Eine naturphilosophische Untersuchung*. Brunswik, 37.

In his research of perceptual processes, Cassirer often refers to Helmholtz, especially to his *Handbook of Physiological Optics*. Helmholtz, an eminent natural scientist sometimes identified with the movement of “physiological neo-Kantianism,” tried by using an experimental study to confirm Kant’s assumptions made in the field of transcendental logic. He considers the finding of general concepts and laws of nature to be the most important task of science. He formulates the seemingly trivial principle: “To comprehend phenomena right, we should start from the assumption that they are comprehensible.”³⁸ Objectification of nature, therefore, begins from sense perception of sensory data grouped in some way in a structured whole. In the abovementioned lecture Cassirer writes:

“Even ordinary sense perception could, indeed, not fulfill its task—the task of building up an objective world—if it were not able to comprehend the isolated sense data under certain group concepts and if it could not determine the ‘invariants’ in reference to this group. In this respect sense perception is a first and elementary stage of a general process that comes to its climax and its perfection in science, in geometrical knowledge. In both cases we find, on a different scale, the same characteristic operations.”³⁹

Moreover, according to Cassirer the group theory has “universality of applicability and extends to all fields of human knowledge.”⁴⁰ It is not only a theory of invariants in geometry as the “culmination” of the objectification of the process of sensory perception, but also the theory of invariants of the beginnings of this process. The use of the group theory in quantum mechanics, which Cassirer knew through Hermann Weyl’s *Gruppentheorie und Quantenmechanik* (1928), cemented him in this view linking unrelated to this moment far areas of physical and mathematical knowledge.⁴¹ Cassirer concludes: “The truth is that the search for constancy, the tendency toward certain invariants, constitutes a characteristic feature and immanent function of perception. This function is as much a condition of perception of objective existence as it is a condition of objective knowledge.”⁴²

Therefore we dare to say that the philosophy of symbolic forms, and also the theory of perception included in it, is a “theory of invariants of certain groups of transformations.”

³⁸ Helmholtz, von H. 1896. *Handbuch der physiologischen Optik*. Hamburg–Leipzig, 591.

³⁹ Cassirer, E. 1979. *Reflections on the Concept of Group and the Theory of Perception*, op. cit., 288.

⁴⁰ Ibid., 290.

⁴¹ See also: Cassirer, E. *Determinismus und Indeterminismus in der modernen Physik. Historische und systematische Studien zum Kausalproblem*. In: ECW19.

⁴² Cassirer, E. *The Concept of Group and the Theory of Perception*. In: ECW24, 233.

The orientation toward the structure, the group, the form or the system is according to Cassirer a general trend which characterizes the development of thought in the mid-twentieth century. One of its manifestations apart from the said theories of field, group or Gestalt can be found in linguistic investigations carried out by Ferdinand de Saussure, Roman Jakobson or *structuralism* in general.⁴³ Those aforementioned conceptions represent for Cassirer the ways of escaping the methodological dilemma which consists of the following predicament: how to express the diversity and multitude of the forms of cognition in a logical and unitary way and at the same time avoid compromising their specificity (as it was the case in Hegel's phenomenology). Cassirer's evades the dilemma with the system of invariants that enable to translate one form of cognition to another.

The philosophy of symbolic forms is the most general expression of the said tendency and its purpose is to explore the system of the totality of "invariants" of cognition which manifests itself in particular sciences in different ways. It expresses itself in objectified scientific systems, in a simple factual act of perception and in the "perception of the expression." In both cases the starting point is the *phenomenon*, from which we start building scientific systems or reconstructing basic laws of perception. The search for the "invariants" of perception or invariants of logical transformations is and should be the "basis" of the every possible philosophical system, be it realistic or idealistic.

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⁴³ Cassirer wrote on structuralists in one of his latest works: *Structuralism in Modern Linguistics*. In: ECW24 and in a chapter on language in his *An Essay on Man. An Introduction to a Philosophy of Human Culture*. Yale University Press, 142–175. See also: Silverstone, R. 1976. "Ernst Cassirer and Claude Lévi-Strauss: Two Approaches to the Study of Myth." *Archives de sciences sociales des religions*, 21, 41; Strensky, I. 1987. *Four Theories of Myth in Twentieth-Century History: Cassirer, Eliade, Levi-Strauss, and Malinowski*. Iowa.