Art and Science as Supplementary Symbolic Forms in Organizational Theory?

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Ernst Cassirer (1874-1945) was forced to leave Germany in 1933 when the Nazis came to power. He then lectured at Oxford University until 1935, when he became professor at Gothenburg University. In 1941 he moved to the United States, where he lectured at Yale University until moving to New York in 1943 where he lectured at Columbia University until his death in 1945. An “Essay on Man” was written in English as an introduction of his philosophy to symbolic forms for his new American audience.

Man as Animal Symbolicum
The notion of man as an “Animal Symbolicum” is central in Cassirer’s “An Essay on Man” (1944). In our modern world, we tend to see ourselves as Animal Rationale, Cassirer claims. Instead he proposes that we would benefit from understanding man as a symbolic animal: Man lives in a world of signs and symbols. Symbols - in the proper sense of this term - cannot be reduced to mere signals. A signal belongs to two different universes of discourse: A signal is part of the physical world of being; a symbol is part of the human world of meaning. Signals are "operators"; symbols are "designators". Signals, even when understood and used as such, have nevertheless a sort of physical or substantial being; while symbols have only a functional value, following Cassirer.

To illustrate his point Cassirer uses animal examples from among other Pavlov (and his dogs) and Clever Hans (the horse that, according to his owner, responded to questions requiring mathematical calculations by tapping his hoof). Through these examples he shows how an animal possesses a practical imagination and intelligence, whereas man alone has developed a new form: A symbolic imagination and intelligence. Cassirer makes use of the Helen Keller case to demonstrate the mental development of the individual mind from one form to the other (from a merely practical attitude to a symbolic attitude). The story of this blind deaf-mute’s journey to a communicative community shows how the symbolic function of words opens a new horizon, a wider and freer area to roam in. Everything has a name - the symbolic function is a principle of universal applicability which encompasses the whole field of human thought. To Helen Keller this discovery came as a sudden shock. The child began to see the world in a new light.
Thus the principle of symbolism becomes Cassirer’s magic word, the “Open Sesame!” He claims that symbolism has its own universality, validity, and general applicability, giving access to that which is specifically of the human world, that is, to the world of human culture. Once man is in possession of this magic key further progress is guaranteed, Cassirer promises. Such progress is evidently not hindered or made impossible by any lack in the material sense, as shown in the case of Helen Keller: A human being in the construction of her human world is not dependent upon the quality of her sense material. Humans can construct their symbolic world out of the poorest and scantiest material. This process of construction is also a process of reflection: Reflection becomes an important capacity to single out from the whole indiscriminate mass or the stream of floating sensuous phenomena certain fixed elements in order to separate them and to direct attention upon them. Cassirer shows how the loss or impairment of speech caused by brain injury alters the ability to reflect and thus the whole character of human behavior, as shown in the study of the psychopathology of language: Such changes are hardly apparent in the patients’ outward behavior. They tend to act in a perfectly normal manner. They can perform the tasks of everyday life; some of them can even build up substantial skill in such tests. But they are at a complete loss as soon as the problem requires any specific theoretical or reflective activity. They are no longer able to think in general concepts or categories. Having lost their grip on universals, they glue to the immediate facts, to concrete situations. The ability to reflect is lost. Accordingly, the crucial ability to differentiate between the "real" and the "possible" is also lost. Like animals, one is then confined within the world of sense perceptions.

Cassirer claims that empiricists and positivists have always maintained that the uppermost mission of human knowledge is to give us the facts and nothing but the facts. However, as Cassirer shows us, human knowledge is by its very nature symbolic knowledge. A symbol has no actual existence as a part of the physical world; it has a "meaning". Language, art, myth, religion, science and history are examples of systems of human activities and outstanding characteristics of man’s work. They are in Cassirer’s terminology symbolic forms that represent different perspectives that can be taken of any object. Accordingly, science alone does not provide us with a sufficient channel to reality. It has to be complemented by other forms of understanding, and in An Essay on Man Cassirer in particular emphasizes art as a supplement to science: Art is also a way that leads to a more realistic view of things and life.
It is a way of discovering the external world, but not in the same way as we do through science.

**Science, Art and the Third Dimension of Space**

Science’s way to the objective world is through classification of our sense perceptions. Science and language help us to ascertain and determine our concepts of the external world to give them meaning. Such classification is the result of a determined effort toward simplification, following Cassirer. Art, on the other hand, is an act of condensation and concentration. "Language and science are abbreviations of reality; art is an intensification of reality", according to Cassirer (1944, p.143). Art is not just a reproduction or imitation of a ready-made, given reality, but a discovery of reality through a continuous process of concentration: An artist is just as much a discoverer of the forms of nature as a scientist is a discoverer of facts or natural laws.

Man is an animal who has discovered a new method for adapting himself to the environment, Cassirer claims. Building on the biologist Johannes von Uexküll, he illustrates how every organism, even the lowest, possesses a certain Merknetz or receptor system, and a certain Wirknetz or effector system. These two systems cooperate and strive towards equilibrium. Through the receptor system the organism receives outward stimuli. Through the effector system it reacts to the stimuli. These processes are closely interwoven, as links in the same chain that Uexküll calls the Funktionskreis or the functional circle of the animal.

The functional circle of man has undergone a qualitative change, according to Cassirer. Man has developed, in addition to the receptor system and the effector system which are to be found in all animal species, a third link, namely the symbolic system. In contrast to other animals, man lives not simply in a broader reality; he lives in a new dimension of reality. However, this dimension of reality is gradually taken out of sight through habitual ways of unilateral concentration on the formal structures of life and to causality or finality, that is, through using “the eye of science and language” alone. To fully grasp the richness of the world we need art as a special direction or an orientation for our thoughts, feelings and imagination. In the realm of art we forget questions like “What is that for?” or “Where does that come from?”. We discover the forms of things behind their empirical properties. And we are not speaking of art as a way of identifying static elements; ornaments, accessories or
embellishments, according to Cassirer, but as a way of revealing the mobile order and a new horizon of nature.

Art and science move in completely different planes, and they can not oppose or avoid each other, Cassirer maintains. On the one hand we have the conceptual interpretation of science. On the other hand, we have the intuitive interpretation of art. They are representing different perspectives or angles of refraction. Cassirer’s elegant analogy goes to the psychology of sense perception: Without the use of both eyes, without a binocular vision, there will be no awareness of the third dimension of space. “The depth of human experience in the same sense depends on the fact that we are able to vary our modes of seeing, that we can alternate our views of reality,” Cassirer claims (1944, p.170). In our attempts to uncover the theoretical reasons or the practical effects of things, we concentrate on causality or finality. The consequence is that we habitually lose sight of their instant appearances. We then develop a sort of blindness. The role of art is that it teaches us to visualize and not only conceptualize or utilize things. Art provides us with a richer, more vivid and colorful representation of reality, as well as a more profound insight into the formal structures of reality. Together with science, that is, through using “the eye of science as well as the eye of art” simultaneously, art brings us closer to the third dimension of space and to a more realistic view of our world.

**Cassirer and the Roles of Science and Art**

Like all the other symbolic forms art is not the mere replica of a ready-made, prearranged reality, following Cassirer, but one of the ways leading to a more realistic view of things and of human life. It is not an imitation, but a discovery of reality. We do not, however, discover nature through art in the same sense in which the scientist uses the term "nature". Through language and science we establish and determine our concepts of the external world: We must classify our sense perceptions to provide them with an objective meaning. Such classification is the consequence of a relentless effort toward simplification. Language and science depend upon one and the same process of abstraction; while art may be explained as a continuous process of concretion: "The artist is just as much a discoverer of the forms of nature as the scientist is a discoverer of facts or natural laws" (1944, p.143-144).

Cassirer uses the work of artists in order to illustrate how one may achieve deeper insights through the artistic process. He claims for example that painters and sculptors are “the great
teachers in the territory of the visible world”. Their awareness of pure forms of things is not an instinctive gift of nature. What we need is to “open the artistic eye”. There is a certain blindness that gradually develops and becomes habitual. We thus may have met with an object of our usual sense experience a numerous times without ever having "seen" its form. We become bewildered if asked to describe not its physical qualities or effects but its pure visual shape and structure. It is art that fills this gap, according to Cassirer. We live, however, in a world of science occupied with the analysis and scrutiny of sense objects and the study of their effects. But science means abstraction, and abstraction is always an impoverishment of reality, Cassirer claims: "Aesthetic experience is incomparably richer" (1944, p.149). The great painters show us the form of external things. The great dramatists show us the form of inner life. Dramatic art discloses a new breadth and depth of life. It offers an awareness of human things and human fates, of human immensity and despair, in comparison to which our ordinary existence appears poor and trivial. In his poetic way Cassirer claims that we all feel, vaguely and dimly, the infinite potentialities of life, which silently await the moment when they are to be called forth into the clear and powerful light of consciousness. This calls for art: It is art that may provide us with this intensification and illumination. (It is also according to Cassirer the degree of intensification and illumination which is the measure of the excellence of art.) In the art process that brings us a new insight, a light of consciousness, the artist, the spectator and auditors interact: Just like the process of speech, the artistic process is a dialogical and dialectic one. Not even the spectator is left to a purely passive role. We cannot understand a work of art without, to a certain degree, repeating and reconstructing the creative process by which it has come to being.

Consequently, art brings insights into deeper layers of reality. Awareness of the depths in things always requires an effort on the part of our energetic and productive energies. But since artistic and scientific energies do not move in the same direction, and do not tend toward the same end, they cannot give us the same aspect of reality. There is a conceptual depth as well as a purely visual depth. The first is discovered by science; the second is revealed in art. The first aid is to discover the reason of things; the second is seeing their forms. In science we try to trace phenomena back to their first causes; to general laws and principles. In art we are absorbed in their immediate appearance, and we enjoy this appearance to the fullest extent in all its richness and variety, Cassirer holds forth. Here we are not concerned by the uniformity of laws but with the multiformity and diversity of intuitions.
Science and art represent two views of truth that are in contrast with one another, but not in conflict or contradiction. It is characteristic of the nature of man that he is not limited to one specific and single approach to reality but can choose his point of view and so pass from one aspect of things to another. Art is knowledge – but it is knowledge of a peculiar and specific kind.

**On art and science as supplementary forms in organizational theory**

I cannot find that Cassirer puts in plain words why he chooses, among all the symbolic forms he investigates, to discuss the importance of combining art and science in particular. Why not art in combination with history? Or myth and language? My guess is that these two forms and their relationship to each other have become increasingly essential in both Cassirer’s philosophy and in his own life. They represent the mediating role Cassirer came to play throughout his academic life, and the ongoing debates he facilitated and stimulated in his works between science and the humanities. These two forms also seem to illustrate particularly well, epistemologically, Cassirer’s attempt to establish a philosophy that does not deny man’s capacity to reach a more realistic and objective world.

Here is to say, that science to Cassirer is the natural sciences, *Naturwissenschaften*, and that he had gradually developed his ideas of a relationship between the natural sciences and the *Geisteswissenschaften* or cultural sciences. His discussion of art versus science in An Essay on Man therefore in all probability reflects his long interest in exploring the relation between science and the humanities. My supposition is also that Cassirer found that the combination of the two forms of art and science had epistemological consequences that were particularly easy to explain for his new audience. They seem to be well suited as an illustration of the usefulness of his philosophy (An Essay on Man was written for his new American audience). That is, his combination of these two specific forms was not only driven by his mediating role between the major traditions of what was to become known as Anglo-Saxon analytic and continental radical traditions, but also of an interest in reaching a new audience. By exemplifying epistemological consequences of art versus science he explores and explains how we interrelate with the external world; and how we may gain knowledge that can bring us closer to reality and make us better at navigating in what he calls three dimensional space.
What Cassirer forcefully and beautifully does by bringing in art as symbolic form, is to point to the power of artistic imagination and how we relate to the world through the logics that follows art as symbolic form. Art is a way of “being-and-acting-in-the-world”, where the quality depends on the ability to illuminate the multi-leveled world. In that respect, Cassirer’s view of the role of art differs from, for example, Darsø’s otherwise thorough presentation of art in business (Darsø, 2004). Darsø claims that there are, basically, four options regarding arts-in-business: Business uses the art for decoration, for entertainment, as instruments (e.g.; for teambuilding, communication training, innovation etc.), or integrates arts in strategic processes of transformation. What Darsø does, is to describe different functions of art in organizations. Art becomes an object or a tool rather than a way of approaching, seeing, sensing, understanding, and performing. Cassirer’s approach is more profound, in the sense that he presents art as one way of attaining a more objective view of the world. Applied on organizations, art opens the eye that makes it possible to go beyond the formal structures of organizational life. That is; together with science art makes it possible to develop a three dimensional view of organizations. For example, all of the four functions of art in business as described by Darsø may be approached in both scientific and artistic ways, but it is the simultaneous understanding of phenomena like art as decoration, art as entertainment etc. that makes it possible to understand how the surface and deeper levels of these phenomena interact. This is the core of Cassirer’s message; the need to develop a capacity to cope with the world in a binocular way.

Applied to organizations then, art is not primarily a question of metaphors, or decoration or entertainment, or tools for achieving something, although art may also fill all these functions: In Cassirer’s landscape art is more than function, it is about how we relate to, and how we interact with, and how we shape the world. It is about intensifying more than reducing, it is about creating rather than categorizing. But Cassirer is not an ambassador of art alone. Science is still an important way of grasping the world. Not only so; science is the last step in man's mental progress, Cassirer claims, the uppermost and most characteristic realization of human culture. Nonetheless; science is not sufficient. Being a competent practitioner requires the use of both eyes instead of merely one: The eye of science and language as well as the eye of art. Without this “binocular vision” we loose insight into what Cassirer refers to as the third dimension of space, and that should apply to the space of organizing as well.
**Supplementary channels to reality?**
Following Cassirer; art and science are two symbolic forms that represent distinctively different, but at the same time supplementary, channels to reality. That is, they represent two different paths to, and ways of organizing, the same reality. They lead us to different layers of reality, but it is the combination of these two forms that may have the most important epistemological, and practical, consequences.

This illustrates how Cassirer falls between different poles and in particular between the poles of Naturwissenschaften and Geisteswissenschaften. Cassirer argued against Heidegger’s radical phenomenology, as he did against the Vienna circle of logical empiricists. In a discourse dominated by the antagonistic continental and analytic philosophical schools it became difficult to categorize Cassirer. The development of philosophy in general and organizational thought in particular after Cassirer’s death seems to have continued this antagonism (Friedman, 2000; Friedman, 2005). The rational approaches of organization theory with a focus on concrete surface phenomena with formal plans, quantitative objectives, and hierarchical organizational structures stand in contrast to the interpretive view of organization as deep level phenomena with values, norms, interpretations, feelings, and mental images as the main areas of interest. The ontological and epistemological assumptions underlying these two directions represent different views of knowledge as “truth” and as “thing” versus as “process” and “relations” (Newell et al., 2002; Hamlin et al., 2001). The consequence of the parting of the ways seems to be two main camps in management theory and practice: Management becomes programming and control, or it becomes adaptation, exploration, learning and symbolic management. Cassirer challenges us to overcome this dualism.
References


