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Michael Ranta
m.ranta@comhem.se

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Implied World Views in Pictures: Reflections from a Cognitive Psychological and Anthropological Point of View

Michael Ranta

Abstract

In traditional art history, iconological attempts to analyze visual works of art by treating their formal and semantic features as symptoms of more general, implied world views or cultures have occurred rather frequently. Still, such attempts have been criticized for permitting subjective and non-verifiable interpretations. In this paper, however, I will argue that (i) pictorial works of art indeed imply wider world views or schemata, and (ii) that our comprehension of these schemata can be explained by taking into account recent research within cognitive psychology. More specifically, I will argue that intelligence partly consists of the storage and retrieval of action scripts or schemata which may occur on various levels of abstraction. I will claim that the possession of high-level narrative structures, shared by a relatively large group of beholders, is actually a necessary presupposition for understanding pictorial works of art as part of a wider context, that is, as implying world views.

Key Words

aesthetics, anthropology, art history, categorization, cognitive psychology, iconology, narratology, schema, theory, time, world view

1. Introduction

In the humanities, narratology has become a growing field of interest during the last few decades, most notably among literary analysts, linguists and semioticians.^[1] Quite frequently, narration has been associated with verbal discourses, whether in written or oral form, where, briefly put, events or situations are represented in time sequences. Accordingly, theoretical discussions concerning narrativity have usually focused upon literature and drama, though also on cinema films and television. However, the ability of static pictures to represent actions and to narrate stories seems to have received much less attention in art theory contexts.

Among art historians, on the other hand, the narrative aspects of visual art have, of course, constituted a prevalent focus of interest, though chiefly from a descriptive, interpretative and historical point of view. Still, attempts to elucidate any deeper psychological and philosophical aspects involved in visual narrativity have usually occurred on a rather superficial level, consisting of scattered remarks, intuitively based hypotheses, or the like. Any continuous and systematic treatment of narrative and temporal imagery, compared to the vast amount of discussions concerning, e.g., the rendering of space and perspective, seems to have been largely absent.^[2]

Now, I have outlined elsewhere how, and by what means, static visual representations, such as paintings, sculptures, photographs, etc., are capable of rendering narrative and temporally extended themes and, moreover, by taking some proposals from especially cognitive psychology into consideration, that is, in what way such renderings may correspond to conceivable beholders' pre-established expectations or mental schemata.^[3] In the present context, however, I will turn to the question of whether works of art *qua* narratives are just as capable of telling stories as narratives expressed more or less explicitly, or also implicitly may depict wider fictional or real "worlds" or world views. Within traditional art history, iconological attempts to analyze visual works of art by treating their formal and semantic features as symptoms of more general, implied world views or cultures have frequently occurred. Still, such attempts have been criticized for permitting subjective and non-verifiable (or non-falsifiable) interpretations.

In this paper, though, I will argue that (i) pictorial works of art indeed imply wider world views or schemata, and (ii) that our comprehension of these schemata can be explained by taking recent research within cognitive psychology into account. More specifically, I will argue (influenced by, e.g., the work of Roger Schank) that intelligence basically consists in the storage and retrieval of action scripts or schemata which may occur on various levels of abstraction.^[4] The possession of high-level narrative structures, shared by a relatively large group of beholders is, I will claim, actually correlated with our comprehension of pictorial works of art as such, but also imply world views.

2. Iconology and World Views

Within traditional art history, the Warburg School, and most notably Erwin Panofsky, have held considerable influence by introducing and elaborating the so-called iconographical or iconological methods. According to Panofsky, a fruitful investigation of works of art should strive primarily for an analysis of their meaning-aspects in contradistinction to their formal aspects. Such an analysis or interpretation can, and should, take several meaning levels into consideration.^[5] First, we have a pre-iconographic level: the depiction of human beings, animals, natural or artificial objects, etc., the recognition of which should be as straightforward as possible without necessitating advanced or specialized knowledge. The identification of gestures, expressive qualities and simple actions also belong to this level. A second interpretative level, the iconographical analysis, consists of identifying the subject matter or the theme of the art work. An iconographical interpretation would demand an identification of the depicted agents as certain persons, for example the Virgin Mary or Heracles, or as personifications of abstract concepts such as justice or prudence, having certain attributes, and would, if necessary, contain some reference to relevant myths or tales (i.e., complex action sequences). This level, then, requires acquaintance with relevant literary texts, symbolic dictionaries, and/or certain oral traditions, as well as general knowledge of a history of visual types (i.e., the manner in which themes and concepts have been visualized) as a controlling principle. Finally, a third iconological type of interpretation would treat the art work as symptomatic of a cultural climate or world view and would formulate statements suggested by the work in this respect.

According to Panofsky, this meaning level is "apprehended by ascertaining those underlying principles which reveal the basic attitude of a nation, a period, a class, a religious or philosophical persuasion . . . unconsciously qualified by one personality and condensed into one work. . . [T]hese principles are manifested by. . . both 'compositional methods' and 'iconographical significance.'"^[6] A means or, as Panofsky puts it, equipment for interpretation on this level is termed "synthetic intuition," i.e., "a mental faculty comparable to that of a diagnostician" including "familiarity with the essential tendencies of the human mind."^[7] Thus the interpreter needs, apart from attempting to take all kinds of sources into account, some kind of intuitive sensibility and open-mindedness in order to understand the art work in question as a symptom indicating a broader world view.

Now, although this iconological approach towards works of art is well-known and prominent among art historians, it has not been accepted unanimously but has been criticized for a number of reasons. First, it is sometimes claimed that iconology as a method gives, in general, a one-sided account and evaluation of art works because of its tendency to reduce them to something like verbal messages, thereby neglecting their formal qualities.^[8] On the other hand, numerous examples could be mentioned where Panofsky himself, in concrete analyses of art works, has given considerable attention to their formal manifestation. Moreover, the first pre-iconographical level could perhaps been regarded, at least partly, as an attempt to describe the formal representation of objects *qua* "configurations of line and colour" apart from any meaning aspects.^[9] Second, with regard to the iconological level in particular, it may be

asked in which way claims regarding the occurrence of any underlying principles, constituting or revealing a world view manifested in a work of art, are verifiable or falsifiable. How should we distinguish "deep-interpretations" supported by iconographic or other kinds of evidence from mere speculations, not least due to the fact that a world view is supposed to be "unconsciously qualified by one personality, and condensed into one work"? Panofsky was, not surprisingly, aware of such obstacles:

There is. . .admittedly some danger that iconology will behave. . .like astrology to astrography. . .There is, I am afraid,. . .no other answer to this problem than the use of historical methods tempered, if possible, by common sense. We have to ask ourselves whether or not the symbolical significance of a given motif is a matter of established representational tradition;. . .whether or not a symbolical interpretation can be justified by definite texts or agrees with ideas demonstrably alive in the period and presumably familiar to its artists;. . .and to what extent such a symbolical interpretation is in keeping with the historical position and personal tendencies of the individual master.[\[10\]](#)

Third, the relationship between philosophical doctrines, more general world views, and their artistic manifestation is not always very precise. Iconological research in general, not only in Panofsky's case, has sometimes tended to abstract specific philosophical doctrines (e.g., Neoplatonic thought in Renaissance art) from works of art; still, a broader world view cannot be reduced to a particular philosophy. Rather, philosophical ideas may contribute to or articulate world views but they cannot be identified with the latter. Panofsky himself seemed to draw a distinction between philosophy and world views, and both art as well as philosophy may express or indicate broader world views, thus to some extent being parallel products.[\[11\]](#)

3. Ingredients of World Views

The world view concept (and its cognates) is, however, not very precise and can be used in several senses. Thus, it can not only overlap with, or result in, specific philosophical doctrines but also religious, epistemic, political, moral or otherwise ideological convictions, interests and desires, as well as patterns of behavior. Moreover, the term is not only applied to groups of persons as well as periods and epochs but sometimes also to certain individuals.[\[12\]](#) Now, generally speaking, a world view may perhaps be outlined as a "way of looking at reality, [which] . . .consists of basic assumptions and images [i.e. mental representations] that provide a more or less coherent, though not necessarily accurate, way of thinking about the world."[\[13\]](#) Although world views differ in their way of representing reality due to cross-cultural and more or less idiosyncratic differences, it seems quite problematic to assume that there are no interculturally stable constraints on their formation.

During the last few decades, the view that no theory-neutral observations are achievable has gained relatively wide acceptance among philosophers of science and epistemology as well as other scholars within the human sciences. In its most radical versions, this view has led to various forms of cognitive relativism, that is, the view that beliefs and assertions (based upon observations) cannot be justifiable or true in any neutral sense, but unavoidably have to be judged so in relation to certain theoretical, historical, sociological, cultural or even subjective presuppositions - or, put in another way, world views.[\[14\]](#)

However, although we might allow for a certain plasticity and even unreliability in our observations, this does not necessarily mean that "anything goes." There may be significant constraints on people's perception of objects and visual patterns, and in that case observation is not entirely theory or concept-bound. At least the empirical evidence, which sometimes has been used in support of perceptual relativism, is highly problematic or insufficient. On the contrary,

recent research into visual perception within, for example, neurophysiology and cognitive science seems to suggest that there is indeed a remarkable, cross-cultural stability, at least in terms of some basic aspects of feature, object and pattern recognition.[\[15\]](#)

Now, in order to make any cross-cultural comparisons of world views possible, it seems necessary to establish at least a minimal set of general characteristics of any world view. As suggested by the anthropologist Michael Kerney, there are at least four aspects or "diagnostic categories" which should be taken into consideration.[\[16\]](#)

(i) First, a necessary requirement for something to be a world view is, apart from a conception of a "cosmic totality" or universe, the awareness and distinction between the Self and the Other, that is, the surrounding environment as well as other individuals. The locus of the Self may be coextensive with the individual's body, but this does not necessarily have to be the case; in certain cultures, some vital aspects of the Self are considered to exist outside the physical body. Moreover, the relationship between Self and Other may vary and, for example, be experienced as being intimately interdependent, passive and more or less harmonious, such as occurs in numerous tribal societies. In other cases, however, this relationship is characterized by a stronger emphasis on individualism and personal activity, where the Other is conceived of as a potential threat or as existing in order to be manipulated or exploited. Especially during the Renaissance, the Enlightenment and in modern Western society, such a tendency has been prevalent.[\[17\]](#)

(ii) Second, world views can be characterized by their ways of categorizing reality. The process of classification, that is, naming objects and conceptually subsuming them under larger more general groupings, appears to be a universal phenomenon in all societies, although, of course, a wide variety of classification schemes exists. On a fundamental level, this seems especially to be the case regarding two contrasting classificatory distinctions, namely what should count as "real" or "unreal" and "natural" or "supernatural," respectively.[\[18\]](#) However, category formation appears, sometimes to a remarkable extent, to hold across a diversity of cultural environments, since the features of the category members in question are similarly perceived among various categorizers. Although it is obvious that the world in principle may be structured in an infinite number of different ways, several psychologists and anthropologists have nevertheless stressed the significance of structures inherent in the environment for category formation. While acknowledging possible higher-level influences on classification, such as linguistic, cultural or cognitive presuppositions, they still assume that evolutionary processes, in combination with environmental features, have had a major constraining impact on how categories are formed.[\[19\]](#)

The non-arbitrariness and relative stability of certain categories seems also to have been confirmed by cross-cultural studies from anthropological research where classification in a variety of cultures and language communities has been studied. Interestingly, the categorization of household objects, kinship, color, and especially plants and animals among different cultures is not always as diverse as one might expect. The anthropologist Barbara Malt, for example, maintains in a detailed discussion and comparison of psychological and anthropological investigations into classification that at least some biological categories are recognized as such with remarkable cross-cultural regularity. There is no doubt, she admits, that utilitarian, mythical or symbolic considerations and varying degrees of expertise or knowledge may influence the formation of categories. For example, top-down, constructive processes play an important role in this respect. However, numerous findings suggest that "some categories are salient to all observers," and that "[s]trong clusters of features exist in the world, and the human categorizer need only apply basic perceptual processes to extract these feature clusters and form categories."[\[20\]](#) Apart

from a possible "substantial contribution of a structured environment,"[21] these constraints may possibly be explained by the fact that human beings share some general capacities, such as ease of perception, motor movement, memory, learning, and so on.[22]

(iii) Third, a basic feature of any world view appears to be the notion of causality, that is, the relationship between acts or causes and their (desired) ends or effects. Although the very concept of causality seems to be a cross-culturally universal phenomenon, its concrete manifestations may of course vary considerably. For example, in societies or individuals with a relatively weak distinction between the Self and the Other, it is more likely that personal thoughts and feelings are attributed to the external world, such as will and volition as causes of events such as weather conditions or accidents. Moreover, any presupposed distinction between real/unreal or natural/supernatural may influence causal attributions or beliefs, resulting, for example, in astrological, religious or magical beliefs.[23] However, from an evolutionary point of view, it seems also reasonable to assume that there are valid cross-cultural constraints concerning people's beliefs in causal relations, having to do with basic needs for food, protection/health, sexual reproduction, and the like.

(iv) Fourth, Kearney suggests that the notions of Space and Time might also be considered to be basic characteristics of world-views. Linguistically speaking, all known languages express a concern with directions and locations, such as *up*, *at*, *down*, *forward*, *backward*, *north*, *south*, and so on. The perception of space, however, may vary due to environmental or other influences. For example, a Pygmy, who has spent all of his/her life in the forest where one cannot see for great distances because of the denseness of the vegetation, may perceive objects outside the forest in a considerably different way from people acquainted with expansive areas. From the perspective of such a person, large animals several miles away on a savannah may be mistaken for insects.[24] According to numerous psychological findings, human beings seem to be able to abstract spatial relationships apart from sensory knowledge, that is, create and store mental representations and maps of spatial features.

Moreover, all languages are capable of articulating temporal relations in a rather abstract way. According to Kearney, the very existence of nouns indicate an awareness of the constancy and continuity of objects or states of affairs, while verbs entail actions or processes. In both cases temporal aspects are involved. Furthermore, it seems that various cultures put emphasis on one area of time rather than the other two (i.e., the past, the present, or the future). A future orientation seems to be predominant in Jewish, Christian and modern Western societies. Perhaps most notable in this respect are societies influenced by Calvinist thinking with their underlying theory of predestination: the doctrine that God has decreed from eternity that part of mankind shall have eternal life and part eternal punishment, which our success, or lack of success, in this life is indicative of. In many Latin American and Mediterranean societies, however, the future is apparently seen as quite uncertain and unreal; there the temporal focus seems to lie in the present. A strong orientation to the past appears to have been manifested in traditional Chinese culture, as well as in Mormon societies, the latter being concerned with the historical past of their religion and genealogy, i.e. their family trees.[25]

Apart from such varying orientations to specific areas of time, there also seem to be different ways of looking at the process of time. In relatively simple, preliterate societies, without any tradition of historiography, a tendency toward an oscillating image of time appears to be prevalent.[26] This means that time is regarded as something with a zig-zag rhythm, swinging back and forth between recurrent events or states of affairs, such as night and day, the seasons, drought and flood, life and death or the succession of generations, certain festivals and ceremonies, and so on. On a broader level it is, of course, also conceivable to think of the emergence, rise and fall of entire civilizations or

societies in a similar way. A linear image of time, however, considers time to be unidirectional and irreversible. Indicative of such a view is obviously the grammar of numerous Indo-European languages, where verbs in every sentence have to be expressed in a tense, such as past, present or future, which is not the case in all languages. This time-image has been predominant in ancient Hebrew and Christian societies but perhaps most notably in modern Western societies with an especially well-developed historiography. Quite obviously, a linear view of time appears to be correlated or at least compatible with a future orientation of time. It should be noted further that oscillating and linear time images do not necessarily have to be mutually exclusive; both views seem to have been common in all societies, depending on the context. Thus we probably should conceive of them as a matter of prevalence or degree rather than a matter of kind.[\[27\]](#)

4. Western Art History and World Views

Let us look at some examples illustrating how Kearney's proposal concerning some minimal requirements for world views might be applicable to works of art. In the present context, I intend to focus upon instances of Western art, which is unfortunate. Kearney's suggestions may well be relevant for the analysis and comprehension of non-Western art, such as Japanese scroll painting, Chinese landscape painting, Mayan reliefs, and so forth. However, any attempt to incorporate here such a variety of pictorial representations from different cultures and historical periods would be time-consuming and demand extensive space. Thus I will have to leave it to the reader to add possible non-Western examples to the following historical outline. Moreover, the Western hemisphere shows remarkable cultural diversity, which seems to be sufficient enough for a preliminary discussion of conceptions and varieties of world views related to pictorial art.

In ancient Egypt, especially, an oscillating image of time seems to have had a comparable impact. Nature's recurring changes - day and night, the seasons, the moon cycles, the annual flood of the Nile and, not the least, life and death - influenced the Egyptian view of temporality deeply and was reflected in rituals and feasts, as well as the political system. (A new temporal cycle started with every pharaoh.) In art, Egyptians were less concerned with rendering man's temporal and transitory affairs rather than the eternal present. As a consequence, it appears, pictorial art is highly schematized and static. There is no illusion of space or depth and hardly any depictions of particular objects or persons with individualized features. Instead, to a considerable extent pictures contain symbolic elements and depict types rather than particulars. Their categorization of objects (humans vs. animals, animate vs. inanimate, women vs. men) is compatible with our present way of classification, and thus comprehensible. Still, the distinction between natural-supernatural seems to deviate from our present standards. Implicitly rendered principles of causality are to some extent intelligible.

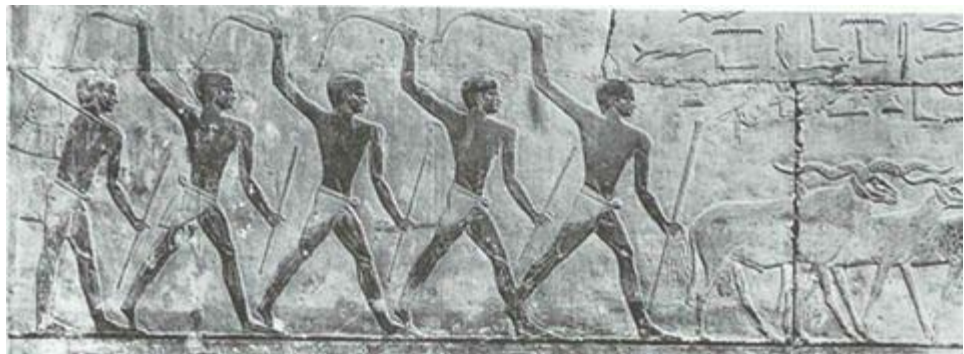


Illustration 1: Tomb of Ti, Saqqara, c. 2450 BC.

Illustration 1 shows clearly a group of men driving a flock of sheep forward; undoubtedly, it would be absurd to claim that the sheep are driving the men backwards (which in that case would be seen as defending themselves with whips)[28]

Also, in archaic Greek art (c. 700-480 B.C.), a striving for the eternal and stable aspects of reality seems to have been prevalent. So-called *kouroi*, funerary or votive statues, perhaps commemorating men who had died in early age and were believed to have a further continuing existence as heroes, are quite obviously not portraits of individuals, despite the fact that some have name inscriptions in their bases.



Illustration 2: Kleobis and Briton, c. 580 BC.[29]

The facial expressions and bodily poses are strongly conventionalized and static; their archaic smile is hardly supposed to be indicative of a transitory emotional expression but rather of the presence of a soul. During the Classical period (c. 480-323 B.C.), however, another kind of self-awareness and image of time seems to have developed. Some of the first experiments in perspective (e.g., the apparent diminution of objects in proportion to their greater distance from the beholder) appear and interest increases in creating broader spatial environments in which individual characters can move, interact and show emotional or moral reactions.



Illustration 3: Frieze from temple of Apollon Epikouris, Bassai, c. 410 BC.[\[30\]](#)

Generally speaking, a previously unknown belief in the self as relatively autonomous from the environment (perhaps most concisely expressed in Protagoras' doctrine "Man is the measure of all things") arose. During the fifth century B.C., this strengthened anthropocentrism led to the conviction that human progress is possible, a cultural evolution made possible with the help of *technē*, i.e., the orderly application of knowledge for the purpose of producing a specific, predetermined product.[\[31\]](#) Accordingly, such a future orientation toward time also seems to have been manifested in pictorial works of art. Despite these anthropocentric tendencies, the group experience and the community's values were still given priority. Rather, it is from the fourth century onwards that a stronger emphasis was put on the personal experience and the human existence, including emotion, imagination, will, perception and thought, as a conscious and relatively independent whole.[\[32\]](#)

Roman portrait busts from the Republican era show an even more unmistakable interest in individuality. With regard to the physiognomic features of the represented persons, strikingly realistic.



Illustration 4: Patrician carrying two portraits of ancestors, c. AD 15.^[33]

This genre had its roots in a tradition of ancestor worship, beginning with the production of wax masks of deceased relatives, and later on using more durable material such as marble. Actually, genealogical lines of descent were drawn to form family trees, making use of portraits and written documents that were stored in aristocratic family archive rooms. Apparently, this tradition implies continuity between the individual and family, as well as a linear image of time, though rather orientated towards the past and the present than the future.

Pictures with an outspoken narrative function with temporal ingredients have of course occurred throughout history.^[34] First, we have numerous historical examples where static, monoscenic and quite distinct pictures are linked in narrative series having a fixed reading order. Modern instances of this kind of pictorial narration can be found in strip cartoons, but do actually occur as early as in antiquity and the Middle Ages. For example, Giotto's frescoes in the Arena Chapel (Padua, Italy), c. 1306, have a distinct reading order that implies a linear time image stretching from the past (Virgin Mary's prehistory, the Passion scenes) to the future (the Last Judgment). The present is also emphasized by means of naturalistic representations of vices and virtues in grisaille, seemingly being inside painted niches, that reminded contemporary beholders of their own lives at that time and the future consequences in terms of punishment or reward during the Last Judgment.



Illustration 5.^[35]

Second, and often discussed by art historians, there are also single pictures showing different events and persons in the same pictorial space. In these cases, sometimes called "continuous narratives" or cases of "simultaneous succession," various phases in an event series are represented simultaneously.^[36] Such forms of pictorial narration, sometimes intertwined with linear narrative renderings, can also be found throughout history. For instance, the epic-documentary representation on the column of Trajan of the emperor's war against the Dacians (c. 101-106 AD), shows a linear succession of events, though in an apparently continuous picture-space, with the emperor appearing numerous times.

The rendering of space in pictorial art has been one of the most well-discussed topics in art history during the last century, and, in concluding this sketch regarding apparent manifestations of world views in pictorial art, some short remarks concerning spatial relations should be sufficient. While historically spatial depth has been indicated quite early by means of the diminution of objects, foreshortenings, and the like, a coherent and unitary rendering of space did not occur before the Renaissance, with its introduction of linear perspective and clearly defined vanishing points. According to Panofsky, in his well-known essay "Die Perspektive als 'symbolische Form'" (1927), perspective during the Renaissance is seemingly a neutral and geometrically correct reproduction of our visual field, a claim, however, that for several reasons can be put into question.^[37] Fundamentally, we should regard perspective as a symbolic form, indicative of a tendency to create a distance between "I" and "not-I," between subject and object, between the Self and the Other. There is an ambiguity in perspective. On one hand, it can be interpreted as the "mathematization" and objective ordering of space, while on the other hand it also puts emphasis on the beholder's individual point of view, his or her personal stance, separated from the world. Thus, linear perspective should be seen as expressive of the creative interdependence between the mind and the world, between the artist/beholder and nature. A thorough discussion of Panofsky's comments on space as revealing world views in this and numerous further texts would probably be fruitful, but unfortunately go beyond the questions at issue in this paper.

5. Cognitive Psychology and Schema Theory

After having suggested some minimal, though probably not exhaustive, requirements for, or constituents of, world views and their apparent manifestation in works of art, let us turn to the question of how and in what way research within cognitive psychology might help us to elucidate this notion and, furthermore, shed some light on the iconological aspects of art works. Now, during the last decades cognitive psychologists have given considerable attention to the capacity of humans and other living creatures to categorize objects and events. It seems unquestionable that this capacity is essential for organisms to survive and to improve their living conditions. The formation of categories enables us to apply previous experiences to new ones, to make inferences, and to make predictions about the future; they provide efficiency in communication.. Important questions, however, are how do categories arise at all (i.e., whether, or to what extent, they are the result of environmental features or constructive processes on the part of the categorizer), and how are they represented in consciousness? A major tenet in cognitive psychology is the assumption that the mind should be regarded as a symbol-processing system, and that one important goal is to identify and explain the representations and symbolic processes involved in cognitive activities. A significant characteristic of cognitive psychology, which clearly distinguishes it from traditional behaviourism, is thus the supposition that intelligent organisms are capable of constructing and manipulating *mental representations*.

A number of cognitive psychologists have argued that perception and cognitive activities are hierarchically structured. New information is compared with and assimilated into broader schemata or categories that are necessary for object recognition, explanations, predictions and communicative activities. Put in another way, humans seem to be able to store mental representations which have something like a *type-character*. These representations are thus some kind of abstraction, stored in long-term memory, with which external objects are compared. Common taxonomic categories are acquired after encountering several particular instances of the category in question, after which relevant characteristics are extracted and integrated into category knowledge.

Numerous studies within cognitive psychology indicate that category formation in general, whether we think of categories such as *furniture, fruit, birds,*

animals, and so on, may be explained as outlined here. It should also be emphasized that these studies are empirically based, making use of sophisticated and rigorous experimental and statistical methods, thus giving the hypotheses put forward, I believe, additional strength compared to pure philosophical reflections.[\[38\]](#)

Research within cognitive psychology suggests that not only objects but also events may be regarded as belonging to more general categories, i.e., action schemas. For example, events such as *buying a ticket* or *wearing a dark dress* may belong to categories such as *going to the cinema* or *going to a funeral*, which may be further categorized as instances of *an entertainment event*, or *an occasion for grief*. Sequences of such stereotypical and categorizable actions are commonly called "frames," "scripts" or "event schemas" in cognitive psychology.[\[39\]](#) These schemas thus incorporate generalized knowledge about event sequences, e.g., the order in which specific events will take place; causal, enabling, or conventionalized relations between these events; and what kind of events occur at all in certain action sequences. Moreover, there are also scene schemas that are characterized by spatial rather than temporal relations. For example, we have certain expectations as to how the rooms, streets and buildings look like where particular activities, such as going to a restaurant or going to a funeral, take place. Hence we have mentally stored inventory information, i.e., what kinds of objects normally appear in such situations, as well as spatial-relation information, concerning the usual spatial layout of a scene.[\[40\]](#)

A number of experimental studies have been carried out in order to investigate the formation and structure of such action schemas or scripts. It has been proposed that, to a considerable extent, our knowledge is organized around a large amount of stereotypic situations consisting of more or less routine activities.[\[41\]](#) Through previous direct or indirect experiences, we acquire hundreds of such cultural stereotypes, along with idiosyncratic variations. Moreover, such memory structures may occur on various levels of abstraction. In the lower levels there will be scenes: general structures that describe how and when a particular set of actions will take place, such as a doctor's waiting room scene, reception scene or surgery scene. Each scene defines a setting, a goal and actions in attempting to reach a specific goal. Scenes can point to scripts, which provide the details concerning stereotyped actions that take place within a scene. They are then organized into wider "memory organization packages" (MOPs) which are directed towards the achievement of a major goal. Several MOPs may be active at one time and may reflect the physical, social and personal aspects of a certain activity. Moreover, MOPs may be more or less idiosyncratic, culturally specific or even universal. Some goal-derived categories seem to be relatively stable when it comes to between-subject, as well as to within-subject agreement. As experimental findings obtained by Lawrence Barsalou and his colleagues have revealed, typicality ratings of members of goal-derived categories are sometimes roughly as stable as those of common taxonomic categories. In several cases, including rather bizarre ones such as ways to escape being killed by the Mafia, goal-related categories have shown to exhibit prototype structures quite similar to those in common taxonomic ones.[\[42\]](#) Although people have never encountered or memorized members of such categories before, thus apparently lacking any basis for judging some of them as more typical than others, it is not the case that they are regarded as equivalent. In the last example mentioned, it may be admitted that moving to South America would be more efficient or even optimal for achieving the relevant goal than moving to Copenhagen, if one lives in Stockholm. However, in both cases one is basically assuming that maximizing the geographic distance between oneself and the Mafia (or any conceivable threat!) should optimize the chance of goal-success. Such a category member would thus have something like a prototypical status within the category in question, with a relatively high degree of intersubjective agreement. According to Barsalou, this stability may at least partly be accounted for by taking underlying causal principles into

consideration:

...[T]he causal principles that bear on goal achievement may often provide strong and salient constraints on the properties that can represent goal-derived categories. For example, causal principles relevant to human interactions specify that geographic distance is a relevant property for ways to escape being killed by the Mafia. Even though a given goal-derived category may only occur to a few people on a few occasions, the causal principles that constrain it may be obvious and well known, such that different people construct similar representations."[\[43\]](#)

Now, it is hardly controversial to suspect, I believe, that the identity of cultures, and sub-cultures, of course, is based upon the sharing of such low- and high-level narrative structures to a considerable extent, or, as we might say, of more or less specific constituents of world views. And, as the cognitive psychologist Roger Schank has claimed, the sharing of certain stories actually defines a culture or subculture, although their members often are unaware of such stories' existence; they are rather tacitly taken for granted and appear in highly abbreviated form.

With regard to pictorial art, we can assume that in numerous cases the rendered content more or less corresponds to and may be assimilated by narrative mental representations that are shared by a relatively large group of beholders. As, for example, the art historian Michael Baxandall convincingly has claimed, artists have usually adapted their work to the general cognitive demands and presuppositions of the intended beholders.[\[44\]](#) Although Baxandall has focused chiefly on strategies for pictorial representation used in fifteenth-century Italian painting, it seems quite possible to take his account as suggesting a more general point. The production of visual works of art is influenced by the demands and needs of a certain public. The artist responds to these demands and offers opportunities for the beholder to apply the background experience of his or her way of life (in this case, including the knowledge of biblical stories) as well as artistic conventions. The beholder interprets a work of art according to acquired category systems and habits that the work has been adapted to. The recognition of familiar items or themes and the experience of something as typical, in some sense, may give the beholder a feeling of satisfaction. With regard to the historical context discussed by Baxandall, such recognizable (and enjoyable) motifs may be typical religious events, typical geometric forms or mathematical relationships and typical dance formations.

The presuppositions on the part of the beholders may, of course, vary considerably among different individuals. An important task of artists, however, appears to be the ability to abstract and visualize those types of subjects that can be recognized and appreciated by a larger public; that is, subjects that provide some kind of common denominators among individual beholders' mental representations. Such visual renderings may be regarded as more or less typical by the intended beholder. Pictorial narration, I believe, is frequently based upon the existence and activation of such mentally stored action and scene schemas on the part of the beholders. These mental schemas are usually constituted out of earlier experiences of action series and events, either due to the beholders' previously acquired, direct familiarity with them, or due to the beholders' acquaintance with written, oral and pictorial descriptions of certain events (e.g., religious or mythological tales). Pictorial narration, we may assume, consists of representing more or less significant components of action sequences familiar to the beholders, sometimes only by rendering a specific, arrested moment that can activate a wider, mentally imagined event schema. Moreover, narrative and temporal aspects in pictorial representations may also occur in implicit renderings of nature's and the seasons' cyclic processes, of human's ontogenetic and phylogenetic development, of cultural and historic situations as

related to other contexts or even the present (i.e., the context in which the picture has been created), and so on.

Thus, as I claim, ingredients of world views, on a more or less general level, are undoubtedly at least implicitly expressed in pictorial art. A picture says indeed more than a thousand words; the explicitly rendered content of a painting is usually spontaneously filled out with assumptions that are tacitly taken for granted on part of the artist and by the intended beholders.^[45] Indeed, the very identification of a picture *qua* semantically meaningful work presupposes, to some extent, the sharing of common beliefs and category structures. Although we have to admit that there are idiosyncratic and cultural variations with regard to world views, it seems hardly plausible to maintain that there are no commonly shared underlying structures for understanding the world, and radical incommensurability claims seem to be highly unconvincing. From such common denominators, the beholder may, as a second step, infer or suspect deviations from his or her own world view.

Endnotes

[1] This article is a revised version of a paper given at the XVith International Congress of Aesthetics, "Changes in Aesthetics," Rio de Janeiro, July 18-23, 2004. A Swedish version has been published in the anthology *Konsterna och själen - Estetik ur ett humanvetenskapligt perspektiv (The Arts and the Soul - Aesthetics from the Point of View of the Human Sciences)*, ed. Göran Hermerén (Royal Academy of Letters, History and Antiquities/ Almqvist & Wiksell International, Stockholm, 2006).

[2] Cf. Götz Pochat, *Bild-Zeit - Zeitgestalt und Erzählstruktur in der bildenden Kunst von den Anfängen bis zur frühen Neuzeit* (Wien/Köln/Weimar: Böhlau Verlag, 1996): "While there have been numerous studies in art history concerned with the concept of space and the rendering of spatial depth, starting with Panofsky [1924]..., treatises on the character of 'time' and its outcome in the visual arts do not reveal the same continuity and impact, although certainly some contributions related to the subject have been published." (p. 7, my trans.).

[3] Michael Ranta, *Mimesis as the Representation of Types - The Historical and Psychological Basis of an Aesthetic Idea* (Stockholm: Stockholm University, 2000); "Narrativity and Time in Static Pictures," in *Selected Papers of the 15th International Congress of Aesthetics*, eds. Kiyokazu Nishimura, Ken-ichi Iwaki, Tanehisa Otabe, Ken-ich Sasaki & Eske Tsugami (Tokyo: The University of Tokyo, 2003), pp. 343-350.

[4] Roger C. Schank, *Tell Me a Story - Narrative and Intelligence* (New York: Scribner, 1995); *Dynamic Memory Revisited* (Cambridge, UK: Cambridge University Press, 1999).

[5] See, e.g., Panofsky, "Ikonographie und Ikonologie" (1939/1955), reprinted in Ekkehard Kaemmerling (ed.), *Bildende Kunst als Zeichensystem 1 - Ikonographie und Ikonologie* (Köln: DuMont Buchverlag, 1979/1987); Erwin Panofsky, *Studies in Iconology - Humanistic Themes in the Art of the Renaissance* (New York: Harper Torchbooks, 1962).

[6] Panofsky (1962), p. 7.

[7] *Ibid.*, pp. 14-15.

[8] See, e.g., Otto Pächt, "Kritik der Ikonologie" (1977), reprinted in *Kaemmerling* (1979/1987): "[One]...treats the picture or work of art as if it were an emblematic mosaic, a pictorial writing... . Art is seen as a procedure...for wrapping certain messages for the purpose of transportation... . The task of the art historian...is then to remove the kernel from the shell....For this way of thinking the ranking of the art work is inseparably connected with

the value and the content of the message which it transports. Art is here...a means for achieving some ends, not an end in itself, and could in principle, when its task has been accomplished,...be dismissed." (p. 355, my trans.)

[9] Cf. Michael Ann Holly, *Panofsky and the Foundations of Art History* (Ithaca/London: Cornell University Press, 1984), pp. 165-167.

[10] Quoted in *ibid.*, p. 164. See also Erwin Panofsky, *Early Netherlandish Painting - Its Origins and Character* (New York, 1953), pp. 142-143.

[11] Cf. also Holly (1984), pp. 161-162; Göran Hermerén, *Representation and Meaning in the Visual Arts - A Study in the Methodology of Iconography and Iconology* (Lund: Scandinavian University Books/Läromedelsförlagen, 1969), pp. 137-138.

[12] Cf. Hermerén (1969), p. 134.

[13] Michael Kearney, *World View* (Novato, Calif.: Chandler & Sharp Publishers, 1984), p. 41.

[14] For excellent discussions of different types of cognitive and moral relativism, see J.W. Meiland & M. Krausz, *Relativism - Cognitive and Moral* (Notre Dame, Ind.: University of Notre Dame Press, 1982); R. Harré & M. Krausz, *Varieties of Relativism* (Oxford/ Cambridge, Mass.: Blackwell Publishers, 1996).

[15] For discussions on these lines, see David Gilman, "What's a Theory to Do...with Seeing? or Some Empirical Considerations for Observation and Theory," *British Journal for the Philosophy of Science*, Vol. 43, 1992, 287-309, a; "A New Perspective on Pictorial Representation," *Australian Journal of Philosophy*, Vol. 70, 1992, 174-186, b; "Pictures in Cognition," *Erkenntnis*, Vol. 41, 1994, 87-102.

[16] Kearney (1984), pp. 65-68. An anonymous reviewer of an earlier version of my article has rightly pointed out that there might be similarities between Kearney's "diagnostic categories" and Kant's conception of phenomena and, I may add, his twelve categories, such as causality or existence/non-existence. A detailed discussion of these parallels would undoubtedly be of interest but, however, fall outside the scope of this paper. Rather than focusing on philosophical reflections, my intention has been to stress the relevance of empirical research, such as provided by anthropology and cognitive psychology, for elucidating some problems within aesthetics.

[17] *Ibid.*, pp. 68-78.

[18] *Ibid.*, pp. 78-84.

[19] For a review and discussion of different psychological proposals stressing the role of either environmental features or constructive processes on the part of the human categorizer in category formation, see Barbara C. Malt, "Category Coherence in Cross-cultural Perspective," *Cognitive Psychology*, vol. 29, pp. 85-148, 1995, 98-99.

[20] *Ibid.*

[21] *Ibid.*, 128.

[22] Cf. also George Lakoff, *Women, Fire, and Dangerous Things - What Categories Reveal about the Mind* (Chicago/London: The University of Chicago Press, 1987), pp. 37-38.

[23] Kearney (1984), pp. 84-89.

[24] *Ibid.*, p. 92.

[25] *Ibid.*, p. 95-97.

[26] Such an image of time has frequently, though somewhat misleadingly, been referred to as a cyclical, completely repetitive sense of time. This very strict view, implying no changes whatsoever, seems to have been prevalent in few societies, if any.

[27] *Ibid.*, pp. 99-102.

[28] This illustration has been taken from Hough Honour & John Fleming, *A World History of Art* (London: Laurence King, 1999), p. 73.

[29] This illustration has been taken from J.J. Pollitt, *Art and Experience in Classical Greece* (Cambridge: Cambridge University Press, 1972), p. 8.

[30] This illustration has been taken from Rhys Carpenter, *The Architects of the Pantheon* (Harmondsworth: Penguin Books, 1970), p. 145.

[31] *Cf.* Pollitt (1972), pp. 68-69.

[32] *Ibid.*, pp. 136-164. *Cf.* also Göran Sörbom, "Gombrich on the Greek Art Revolution," *Nordisk estetisk tidskrift/The Nordic Journal of Aesthetics*, 12/1994, 63-77

[33] This illustration has been taken from Honour & Fleming (1999), p. 208.

[34] Ranta (2003).

[35] This illustration has been taken from James H. Stubblebine, *Giotto - The Arena Chapel Frescoes* (London: Thames and Hudson, 1969), p. 5.

[36] For an early work on this matter, see Sven Rosén, *Succession i simultana bilder - Stilkritiska studier i antikens och renässansens konst* (Lund: Gleerupska universitetsbokandeln, 1912).

[37] Reprinted in Erwin Panofsky (ed. by Hariolf Oberer & Egon Verheyen), *Aufsätze zu Grundfragen der Kunstwissenschaft* (Berlin: Verlag Bruno Hessling, 1964). *Cf.* also the detailed discussion in Holly (1984), pp. 130-157.

[38] *Cf.* Eleanor Rosch, "Cognitive Representations of Semantic Categories," *Journal of Experimental Psychology: General*, Vol. 104, 1975, 192-233; Eleanor Rosch, "Categorization," *Encyclopedia of Human Behavior*, Vol. 1, Academic Press, 1994, pp. 513-523; Eleanor Rosch & Carolyn B. Mervis, "Family Resemblances: Studies in the Internal Structure of Categories," *Cognitive Psychology*, vol. 7, 1975, 573-605; Eleanor Rosch & Barbara B. Lloyd (eds.), *Cognition and Categorization* (Hillsdale, New Jersey: Lawrence Erlbaum Associates, 1978).

[39] See, e.g., Jean Matter Mandler, *Stories, Scripts, and Scenes: Aspects of Schema Theory* (London/Hillsdale, N.J.: Lawrence Erlbaum Associates, 1984). In cognitive psychology, a number of terms have been employed to refer to mental representations of (more or less) complex phenomena. Apart from 'schemata' and 'scripts,' psychologists have also made use of terms such as 'mental models,' 'causal mental models' (which imply explanations and justifications), 'frames,' 'situation models,' 'episodic models,' and so forth. Several of these concepts seem to have the same core set of attributes, though perhaps a basic distinction can be made between (i) representations of pre-existing generic knowledge, and (ii) specific representations which are constructed at the time of use.

[40] *Cf.* Mandler (1984), pp. 13-17.

[41] See, e.g., Roger C. Schank & Robert Abelson, *Scripts, Plans, Goals and Understanding* (Hillsdale, N.J.: Lawrence Erlbaum Associates, 1977); Roger C.

Schank, *Tell Me a Story - Narrative and Intelligence* (New York: Scribners, 1995); Roger C. Schank, *Dynamic Memory Revisited* (Cambridge, UK: Cambridge University Press, 1999); G.H. Bower, M.C. Clark, & T.J. Turner: "Scripts in Memory for Texts," *Cognitive Psychology*, Vol. 11, 1979, 177-220.

[42] Cf. Lawrence W. Barsalou, "Deriving Categories to Achieve Goals," in Gordon H. Bower (ed.): *The Psychology of Learning and Motivation - Advances in Research and Theory*, Vol. 27 (San Diego: Academic Press, 1991), pp. 1-64.

[43] *Ibid.*, pp. 13-14.

[44] Michael Baxandall, *Painting and Experience in Fifteenth Century Italy - A Primer in the Social History of Pictorial Style* (Oxford/New York: Oxford University Press, 1972/1988).

[45] Cf., e.g., Monroe C. Beardsley, *Aesthetics - Problems in the Philosophy of Criticism* (Indianapolis: Hackett, 1958/1981). For an interesting discussion and criticism of Beardsley's view, see Ruth Lorand, "Telling a Story or Telling a World?" *British Journal of Aesthetics*, Vol. 41, 2001, 425-443.

Michael Ranta

Gotlandsgatan 53

Stockholm, SE-116 65

m.ranta@comhem.se

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