GLOBALISATION OUT OF INFORMATION:
A HERMENEUTIC AND AUTOPOIETIC ANALYSIS

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ABSTRACT

Against an ontological background marked by Heidegger's *Being and Time*, this paper uses hermeneutics and the biological theory of autopoiesis in order to penetrate and describe an individual experiencing of the unfolding of globalisation. This paper illustrates this theoretical development with an example that accounts for an individual experiencing of the unfolding of globalisation out of an apparently non-directly related piece of information.

KEY WORDS: Heidegger, autopoiesis, hermeneutics, information, globalisation, interpretive research.

1. INTRODUCTION

Heidegger (1962), hermeneutics and autopoiesis (Maturana and Varela 1980, 1992) have been used for some time in information systems (IS) as well as in other fields of research. Due to space limitations I can neither expand on this context nor present a review of these theories. These tasks are done, for example, in Ilharco (2002), Introna (1997), and Winograd and Flores (1986), which apply complementarily Heidegger's ontology and autopoiesis theory. This is the terrain is where the paper fits in.

2. ACTION AND INFORMATION

Heidegger (1962), Maturana and Varela (1980, 1992), and others as well (e.g., Palmer 1969, Introna 1997, Gadamer 1975, Polanyi 1973), show that there is no position outside history from which one can make sense of our own engagement in the world. The hermeneutic circle, which is used by Heidegger and is consistent with phenomenology and autopoiesis, describes how meaning arises from new distinctions, as well as from the involvement whole in which we are always already in.

Hermeneutics is the science, or art, that aims to answer the question: what is interpretation? Autopoiesis is concerned with a different question: what is a living system? A significant degree of overlap is encountered when trying to answer these two questions. A living system is an autonomous self-interpretative being. Interpretation is a bringing-forth, which is what life is about. The human being is thus a self-interpretative being, a bringing forth on its own, which has a hermeneutic nature (Heidegger 1962).

Hermes was the wing-footed ancient Greek messenger God who brought a message *beyond human understanding* in a form that human intelligence can grasp. A correct understanding thus has to

overcome the barriers of time, space, language, history, and of the others—"something foreign, strange, separated in time, space, or experience is made familiar, present, comprehensible" (Palmer 1969:14).

Our "invariant configuration" (Maturana and Varela 1980:xxi) and the structure we are as a result of our throwness set the barriers that limit a first sense of a perturbation (in autopoietic terms), or of the new text (in hermeneutics terms). The message, the new text, is firstly accessed as separated, part of an environment in which it is distinguished. As an organisationally closed and autonomous system, a person selects, interprets, and reacts in relation to whatever it distinguishes according her/himself at that instant. A human being does not receive 'objective' data from the environment or from other human beings. We access what we come across in-the-world (Heidegger 1962) in accordance with what we essentially are (*organisation*), and in relation to that which we actually are (*structure*)—that is, in *our own terms* (Heidegger 1962).

The hermeneutic interpretative process concedes that there are limits to our ability to make sense of all elements in the environment; however, it strives to overcome these limitations to some extent. The text, that is, a new distinction, is something that needs to be brought forth. Its meaning is not something given and 'out there', forever standing still. Meaning is something that one must find in a human *work*, as such. Natural sciences have developed methods to understand natural objects. When those methods are applied to understanding human works, what arises can only be an understanding of works *as* objects—as silent, natural objects. For exact sciences, interpretation is regarded as the analysis of a given set of data. Nevertheless, it would also be correct to identify as interpretation the seeing and selection of the data. Aristotle (1998) situated interpretation earlier than logical analysis. "Method and object cannot be separated: method has already delimited what we shall see. It has told us what the object is *as* object. For this reason all method is already interpretation, and the object seen with a different method will be a different object. (…) [T]he selection of the relevant tools is already an interpretation of the task of understanding. Analysis is interpretation; feeling the need for analysis is also an interpretation. Thus analysis is really not the primary interpretation but a derivative form" (Palmer 1969:22-3).

Hermeneutics attempts to examine human works *as such*. The human imprinting on a work, is it is meaning. The meaning of a new distinction gets its first sense from the context in which we are already immersed. There must be some level of pre-understanding, some fore-conception (Heidegger 1962), to grasp any sense of the new data. "?S?omehow, by a dialectical process, a partial understanding is used to understand still further, like using pieces of a puzzle to figure out what is missing" (Palmer 1969:25). The actual context and our history do not need to provide a full explanation of the new data, but rather to enable a first linkage between the context and the new element. This first sense is not yet an explanation of the new. The first grasping is the capacity to make some sense of it. This some sense is taken into account to re-interpret the context, which opens up new possibilities. From this re-interpreted context, further understanding of the new element can again be gained. This circular movement is called the hermeneutic circle, and it has neither a clear beginning nor a clear ending.

As our understanding progresses, context becomes the text, and vice versa. "Hermeneutic circle refers to the fact that in interpreting a text one must move back and forth between an overall interpretation and the details that a given reading lets stand out as significant. Since the new details can modify the overall interpretation, which can in turn reveal new details as significant, the circle is supposed to lead to a richer and richer understanding of the text" (Dreyfus 1991:36). The hermeneutic circle explains how the Heideggerian (1962) referential whole (hermeneutic context) provides meaning to the autopoietic perturbation (hermeneutic text), and how the autopoietic perturbation changes the whole in an ongoing movement. Any new element must enter the horizon of the subject on his' *own terms*, that is, in accordance with its organisation in a structure and throwness—which is the deeper signification of the expression 'in' of the word *in*formation (Boland 1983).

Let me consider the paradigmatic autopoietic example of the cell: "If a cell interacts with molecule x and incorporates it in its processes, what takes place as a result of this interaction is determined not by the properties of molecule x but by the way in which that molecule is 'seen' or taken by the cell" (Maturana and Varela 1992:52). The autopoietic system incorporates the new element, or the higher-order autopoietic system incorporates the lower-order autopoietic system, in accordance with its own dynamics (those of the higher order system). "The changes that occur therein as a result of this interaction will be those changes caused by the cell's ?or higher order unity? own structure as a unity" (ibid.). The system that includes the recently incorporated element acts as a unity to determine what changes would take place in that system. Every new element that is captured by an autopoietic system is, or might be, incorporated not as 'what it is', but as 'what the organisation sees it is'. This means the sense that a perturbation has for a person, in order for that perturbation to be the perturbation it is for that

person depends on the person who distinguishes the perturbation, thereby establishing a difference. In hermeneutic terms, the sense of the new text is dependent on the context.

As soon as the new element has been incorporated into the whole, it gains relevance within that same whole, which determines the function of the new element in the autopoietic system. The entity, as it was itself before the perturbation was captured, re-accesses itself within the context of the perturbation; the text becomes the context and vice-versa. A new whole emerges in this way, taking into account the consequences, vast or small, triggered by the detection of the perturbation. The kind of difference made by a perturbation is revealed by the kind of behaviour the being takes from then on. As an example, which I explore below, I am saying that hearing some music might change a human being's preferences in music; or it indeed might change or open diverse and, from an observer's perspective, unexpected domains, for instance one's understanding of politics or of world's economic system.

Hence, no information is ready-made out there in the environment, waiting to be accessed by us. The world we bring forth, the one in which we always and already find ourselves, is structured determined, according to who we are as a having been (Heidegger 1962). This is clear, for example, in the celebrated episode of Newton's discovery of the law of gravity. Isaac Newton was in the shadow of a tree when an apple falls on his head. This, we are told, led him to discover the law of gravity. This story is often used to suggest that luck has an important role in scientific discovery. But, just consider, how many people before Newton had apples and other objects falling on their heads, never leading them to such discoveries as that. It took a man like Newton, who was a *having been* of many years of scientific preparation, for that event—that perturbation—to trigger the kind of compensation that led to the discovery of the law of gravity (Rebelo 2001). A simple fact, the falling of an apple, thus can indeed have very different meanings and consequences on grounds of who is perturbed by that fact.

This conclusion makes the representation of objective reality to evaporate. Man is not only an observer of a world but an author of it as well. Nietzsche (1968:272, n.495) pointed also to this phenomenon: "We can comprehend only a world that we ourselves have made". Arendt (1958:261) emphasised as well this aspect: "(…) whose qualities [of the world] we know no more than the way they affect our measuring instruments."

3. AN EXAMPLE

Let me illustrate the theoretical development presented in this paper, using the hermeneutic circle, with an empirical example that accounts for the emerging of globalisation on grounds of an apparently trivial piece of information. The Russian politician Grigory Yavlinsky, leader of the Yabloko, an important party in the Duma, said that when he heard the Beatles his world-view changed: "The first world-view changing moment in my life was when I discovered the Beatles" (Yavlinsky 1997).
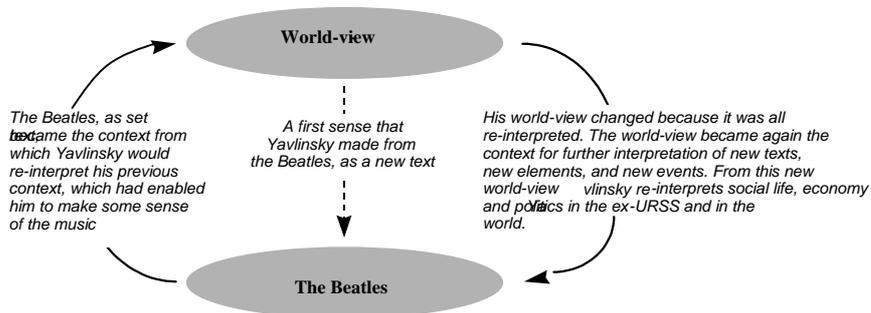

Figure 1. Yavlinsky's Change of World-Views

Yavlinsky explains how a music he liked changes not his taste in music but his opinions, feelings, and perspectives about the world as such. 'The Beatles' were a new element, a new *text* to use the hermeneutics technical language, or a perturbation to use the autopoietic's one. For Yavlinsky, hearing the Beatles changed the world in which he was immersed, that is, it changed the *context*, his *world-view*.

Yavlinsky's response to the new text or to the perturbation, that is, its structural determined triggered effect, was no less than a change of world-views. The way in which the music of 'The Beatles' was appropriated by Yavlinsky was as a new context on the basis of which the old context was then reassessed.

Why was he able to make some sense of that music in a way that it changed his world-view? An entirely correct answer needs to rely on his situated experiencing, which opened to him new possibilities into the future and new meanings into the past as well, Yavlinsky experienced—like all of us have already experienced—the authentic present (Heidegger 1962). He had a *moment of vision* (ibid.), in which all his past experience and future possibilities were united in a new revelation of the world. This new world-view was enacted (Varela et. al. 1991), emerged, emanated, in the realms of language: "thanks to the Beatles, I had a common language with my entire generation, everywhere in the world" (Yavlinsky 1997). Information, and IT indeed, let the world, that is, being-in-the-world as such, emerge in/through/within/as globalisation.

"The Beatles" belong to language, "to the domain of communicative ontogenic behaviour" (Maturana and Varela 1992). The music moved in the domain of Yavlinsky's structural coupling. That with the Beatles he had a "common language" with his entire generation means that he was adjusted to a community he belongs. This community was a world community, revealed to him in language. It is important to note that Yavlinsky knew how to speak English reasonably well by the time of the example. This is a passage of an email I received from Yavlinsky's office: "For the first time Dr. Yavlinsky heard Beatles in 1963, he was than a schoolboy in Lvov (Western Ukraine, the USSR). It was a school with a special focus on English, so he could understand the songs. His first impression of the Beatles comes from illegal disks (made out of used X-ray photographs which were used as a substitute for proper plastic discs; people used to call such disks "music on the ribs"), and one could be punished (criminal proceedings could be launched against such listeners) for this. Another possibility was to listen to the Beatles via Polish radio stations (due to the proximity of Lvov to the Polish border this was possible, as the signals of only "capitalist" radio stations were jammed)" (May 31, 2001).
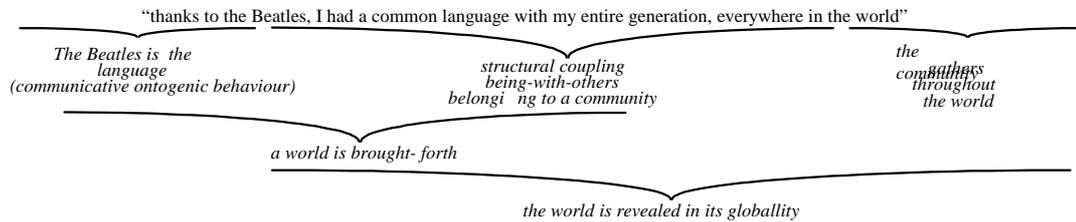

Figure 2. From the Beatles to the Globalisation

Thus, the music he heard either 'on the ribs', on old LPs, on radio, or on TV – that is, on account of the spreading of IT – brought him into a new world, a globalised world. Essentially, information, technological information, that is, IT, showed him globalisation.

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