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On delight: Thoughts for tomorrow

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Abstract

The article introduces the problematics of the classical two-valued logic on which Western thought is generally based, outlining that under the conditions of its logical assumptions the subject I is situated in a world that it cannot address. In this context, the article outlines a short history of cybernetics and the shift from first- to second-order cybernetics. The basic principles of Gordon Pask's 1976 Conversation Theory are introduced. It is argued that this second-order theory grants agency to others through a re-conception of living beings as You logically transcending the I. The key principles of Conversation Theory are set in relation to the poetic forms of discourse that played a key role in art as well as philosophical thinking in China in the past. Second-order thinking, the article argues, is essentially poetic. It foregoes prediction in favour of the potentiality of encountering tomorrow's delights.

Keywords: art aesthetics poetics, second-order cybernetics, Conversation Theory, China

Introduction

> The attitude of man is twofold, in accordance with the twofold nature of the primary words which he speaks. […] The one primary word is the combination I-You. The other primary word is the combination I-It; wherein, without a change in the primary word, one of the words He and She can replace It. Hence the I of man is also twofold. For the I of the primary word I-You is a different I from that of the primary word I-It. Primary words do not signify things, but they intimate relations.
> (Buber [1923] 1937: 8)

> [W]e must seriously countenance the integrity and individuality of these perspectives – having entities, the reality of speaking to them as 'You', and 'I', rather than 'it', or 'that'. A rigorous, quantifiable, yet subjective, (insofar as 'objective' literally implies-'it-referenced'), theory is required. Conversation Theory is an attempt to provide such a vehicle. It carries with it novel methods of measurement, both sharp valued and fuzzy.
> (Pask 1978: 2)

In ancient Greek philosophy, which forms the basis of Western philosophical thinking, the subject 'I' is set into relation to the world in which it lives via mediation by a higher-order wisdom or truth, an absolute objective being. Only absolute objective beings – typically referred to as Gods – know what and how the world in reality is, including what and how human beings are. It is only via reference to this higher-order wisdom that I-subjects can be seen in relation with all the things that they perceive in the world. This becomes apparent

especially in discourses concerned in the widest sense with aesthetic themes, pertaining to sense perception. The artist in Plato's philosophy, for example, depends on the inspiration transmitted by the muses, godly creatures. Any reference to the truth of the world in art cannot be conceived in another way, but as insufflated by higher-order beings. Even the act of creation, thus does not lead to substituting an indirect by a direct relationship. The artist's relation to the reality of the work of art is indirect.

The theoretical construct that defines being in the world as dependent on a mediator consequently also implicates that the relations of the I-subject to both objects and other living beings in the world are of equal value. The focus of the mediation is on truth. The process does not allow for making a qualitative difference between relationships with either things in the world or other living beings in world. I do not have access to the reality of objects, nor the reality of other living beings. Truth can be recognized exclusively from a viewpoint that is extramundane. If all relationships are of equal value, then each encounter of the I-subject, whether with objects or other living beings, is an encounter with an Other. This is the basis for Western thinking. It is essentially two-valued and consequently evolves from its antique variations – that knew of some gaps at least (Westermann 2011) – to a thinking that strictly separates between subject and object, between true and false, and body and mind.

The dualistic thinking is logically founded on the theoretical construct of an external mediator that allows only to a limited extent for qualitative fuzziness. In antiquity, there is only one truly defining relation, and it is the one to the higher-order being, which knows more than I can know. Descartes' famous statement 'Cogito ergo sum' – I think therefore I am (1644) – cuts off this one defining relation, and it is in so far consequent as it carries forward in a radical manner a development that was ongoing, and that leads from a thinking in relations to a thinking in separations. With this gesture that is based on radical doubt, Descartes sets the stage for the development of science, but he also explicates a problem that pertains to Western thinking. It is generally referred to as mind-body problem and relates to the obvious absurdity of a disconnection between body and mind.

Consequently, from now onwards, every encounter of the I-subject with the world is an encounter that is marked by separation. Clearly, being in a world without relations is a meaningless being. The problematics that come along with an I-subject that is reflected onto itself, and the efforts that it needs to reconnect it with the multiplicity of life, are evidenced in the philosophical examinations that follow after Descartes. The philosophical project of Gottfried Wilhelm Leibniz, which makes us 'monads' reflecting the universe ([1714] 1999), is a counter-model to the Cartesian one as is Immanuel Kant's transcendental project, which dedicates itself in the three famous Critiques to the possibility of epistemology, and based on this, of ethics and of aesthetics under the condition of an I-subject-centred view (Kant [1781–90] 1993). Nevertheless, the two-valuedness remains inscribed in the Western model of thinking, and with it remains an I that needs to do without a You. The technical advancement in the twentieth century carries along a model of thought that is based on classical logic. Its success is confirmation and victory of the Cartesian model. Since psychoanalysis entered Western thinking in the nineteenth century, the I-subject might be considered as manifold and reflective, but it is still quite alone.

> And in these operations the person 'I,' whether explicit or implicit, splits into a number of different figures: into an 'I' who is writing and an 'I' who is written, into an empirical 'I' who looks over the shoulder of the 'I' who is writing and into a mythical 'I' who serves as a model for the 'I' who is written. The 'I' of the author is dissolved in the writing.
> (Calvino [1967] 1986: 1)

In the following, a model is described that developed in dialogue with scientific methodologies, while at the same time presenting a counter-model to the two–valued thinking. It heralds the dialogue between art and technology.

A short history of cybernetics

The history of cybernetics begins in the middle of the twentieth century with the famous Macy Conferences. The first Macy Conference on cybernetics took place in 1946, the last and tenth in 1953 (Pias 2016). The conferences carry the name of the foundation that initiated them – the Josiah Macy Jr Foundation. To be precise, one should add that there was already an earlier conference in the year 1942 that predates the above-mentioned series. It was entitled Circular Causal and Feedback Mechanisms in Biological and Social Systems (Glanville 2007: 1180). Participation in this first conference was by invitation only. Among the invitees were key actors in the later conference series, among others, Warren McCulloch, Margaret Mead and Gregory Bateson. What brought the participants together was a shared interest in new technologies and their potentialities, in systems science and inter-disciplinary approaches.

The new technologies – it was assumed – confronted us with questions that could be solved only through dialogue between various disciplines. Consequently, the Macy Conferences involved computer scientists, anthropologists, mathematicians, physicists, psychologists and biologists. The list of famous names is long. It was agreed that a new conceptual framework and a new language was required. It was further agreed that the dialogue needed to be conducted from a systemic viewpoint to allow communication first of all, and second, that feedback and circularity were crucial in the engagement with any system, including systems extending the biological and social ones by technical means.

It is well known that the invention of the computer led to euphoria, at least on the side of science. The world was seen rushing towards a new era, in which humanity would enter a new stage of development. This does not mean that there were no sceptics, but that enormous amounts of money were given to research projects that convincingly promised to substitute human beings by machines within a manageable amount of time. Cybernetics profited from this disposition at its birth, but the combination of systemic approach and inter- disciplinary composition of the partners in dialogue prevented blind euphoria. Eventually, a transition was initiated from a cybernetics of first order, which was basically in line with the framework of the scientific method, to a cybernetics of second order, which can be aligned with the scientific method only to a limited extent as it goes beyond its very methodology. It is a meta enquiry that allows us to critically reflect on the processes of first-order enquiry as they create understandings in and of the world, including science (cp. Westermann forthcoming).

The cybernetics of second order differentiate themselves from the cybernetics of first order essentially by including the observer as observant into the observation. The thought that is at the basis of this development, and that initiates an extension of the system, can be traced back to the philosophy of ancient Greece – as mentioned above, namely that we can never be sure that what we observe is aligned with the reality of the world. If we cannot be sure of this, the investigation must include the act of observing as well. It should be noted that science is not completely unconscious of the problematics of an excluded observer that constitutes a first-order enquiry, but it assumes that access to reality is generally possible and contingent only on us perfecting our way of observing. Science has heralded its triumphal course by circumventing the problem of the excluded observer – one could say – quite elegantly. The scientific method postulates the possibility of falsification. Each scientific proof must be done in such a way that it can be either confirmed or falsified. This means elegant circumvention of the core problem, in so far as one can assume valid results, so long as the results have not been falsified. What is rarely made explicit is that even in the best-case scenario scientific

results are just prob- able. They are sufficiently probable to facilitate the raison d'être of science, predicting future processes. Science, for example, has enabled us to explore the moon (cp. Glanville 2007: 176). Scientific method creates security. It is a security that is also merely probable.

The basic problem is a philosophical one. It is not said that an observation that does not reflect the act of observing can ever state any proposition that corresponds to the reality of the world. In any case, it will never be possible to prove it. A scientific proposition cannot be considered real even if it has not been possible to falsify it over hundreds of years. It is still possible that we have overlooked something, as plausible as our explanations may look like for hundreds of years – e.g., the flat earth theory.

The development of second-order cybernetics is consistent with scientific insights, which suggest that there is no reason to assume that human beings are capable of perceiving their external environment in a stable manner (cp. Foerster [1973] 2003). A method that promises to make reliable predictions on the basis of unreliable observation constitutes an obvious contradiction. It is this contradiction that is addressed in second-order cybernetics by including the act of observing into the examination. However, the system that we deal with in this case is not anymore based on classical logic. It is an extended system that cannot be conceived on the basis of classical two-valued logic.

For the development of cybernetics from first to second order, the scientist Heinz von Foerster plays an important role. With the foundation of the Biological Computer Laboratory (BCL) at the University of Illinois in 1958, an important institution was founded that allowed the further pursuit of the dialogues that had been initiated by the Macy Conferences. It is not insignificant within this context that Heinz von Foerster was not only an extraordinary physicist, but that he also disposed of an extensive education in philosophy. Also for this reason, Gotthard Guenther obtained a position at the BCL in 1960. As a philosopher specializing on German idealism and Hegel's thought, Guenther did not have the profile that would normally allow for obtaining a position at an institution that is concerned with the development of computers. Yet, Gotthard Guenther was of interest to von Foerster for a number of reasons. For example, already in 1953, he had published an essay with the title 'Can mechanical brains have consciousness?' in which he argued that consciousness – not self-consciousness – could, at least theoretically, be represented as a mechanical process, yet not on the basis of classical two-valued logic (Guenther 1953). As an anecdote one could add at this point that the above-mentioned essay was published not in a scientific journal but in a science fiction magazine. Gotthard Guenther, already in the above-mentioned text from 1953, referred to consciousness as a reflection of second order. Yet, it was not until 1967 that the new cybernetics was officially referred to as second-order cybernetics.

At the same time in the United Kingdom, an important group of scientists also worked on the development of cybernetics. The so-called Ratio Club met in the years 1949 to 1958 and included many notable members and guests, e.g., Ross Ashby and Alan Turing (Husbands and Holland 2008). While the group communicated with the cyberneticians in the United States, the development of cybernetics in the United Kingdom can nevertheless be considered a distinct development. Notably, largely thanks to UK scientist Gordon Pask, second-order cybernetics was set into relation with art and design.

Western and Eastern perspectives

Until the introduction of the Western perspective in the eighteenth century, the development of philosophy, aesthetic thought and art in China proceeded largely detached from Western influences. Western perspective, in which vanishing lines end in precisely constructed vanishing points, and by which things that are far are depicted smaller than those that are

close, is in line with the above-mentioned dualistic way of thinking. The British artist David Hockney pointed out that the development of the Western perspective had a great impact also because it led to a military advantage (Hockney and Haas 1988). Even though precisely constructed perspectives appear to no longer play an important role in contemporary Western art, the perspective way of seeing could be seen as making the basic measure of Western views. It is an accepted and dominant way of depicting at least in the applied disciplines such as Architecture and Design. One could argue that the West is governed by a monocular centrism that essentially corresponds to a logo centrism and its two-valued logic. When Western perspective entered China, the term for perspective in Chinese changed from Far Near (yuǎn jìn) to Through View (tòu shì). This indicates a shift that is not simply technical. It is a conceptual shift. Following the 'Great commentary' (300 BC) to the Book of Changes, we may form an idea of what the Far Near Method encompassed. In Chapter 2, in a translation by James Legge, the Commentary states:

> Anciently, when Bao-xi had come to the rule of all under heaven, looking up, he contemplated the brilliant forms exhibited in the sky, and looking down he surveyed the patterns shown on the earth. He contemplated the ornamental appearances of birds and beasts and the (different) suitabilities of the soil. Near [jìn] at hand, in his own person, he found things for consideration, and the same at a distance [yuǎn], in things in general. On this he devised the eight trigrams, to show fully the attributes of the spirit-like and intelligent (operations working secretly), and to classify the qualities of the myriads of things.
> (Anon. ~300bc)

While Western painting is typically oriented towards fixed ideals and abso- lutes, Chinese traditional painting attempts to emphasize the vitality of nature, vagueness and change. When Western art emphasized the genius author as a mediator to an understanding of the world, Chinese art de-emphasized the presence of an author as mediator (Han [2011] 2017). It instead emphasized the function of the artwork as an interface between the viewer and the world. The famous Chinese painting manual Mustard Seed Garden Manual of Painting (Sze 1977), which was originally published in China between 1679 and 1701, states,

> Figures should, in fact, be depicted in such a way that people looking at a painting wish they could change places with them. Otherwise the mountain is just a mountain, the figures mere figures, placed by chance near each other and with no apparent connection; and the whole painting lacks vitality.
> (Sze 1977: 220)

Clearly, the complexity of relations that we find described in the 'Great commentary' to the Book of Changes found representation – but not in the Western sense – in Chinese art, where we also find a fluidity of concepts that is due to thinking relations in the context of life as in movement (cp. Pohl 2006). This thinking is poetic and it has persisted in the East for far longer than in the West.

While Western philosophers struggled with dis-evaluating the Cartesian model of thinking, philosophy in China had focused over hundreds, indeed thousands of years, on thinking relations and not separations. There was a counter-model of thinking in China. Yet, while noticed in the West, it was also rejected as irrelevant. Influential judgements about Chinese thinking as unphilosophical in principle, and for this reason not interesting for a closer examination, are to be found, for example, with Hegel. Earnest attempts to study Chinese thought were rare. The German philosopher Gottfried Wilhelm Leibniz, however, notably named by Norbert Wiener the father of cybernetics (Wiener 1961: 12), discovered similarities between his philosophy and the Confucian tradition, as well as between his binary number system and the *Book of Changes'* system explicated in hexagrams (Leibniz 2006). Further research needs to be done to clarify to what extent Leibniz' understanding of Chinese thought

might have been distorted, as it was based solely on descriptions by Jesuit missionaries and thus subjected to double interpretation.

After Leibniz, attempts to examine Chinese thinking can be found in the twentieth century, but they are more common in avant-garde art than in theory or philosophy. An exception is the Austrian-born Jewish philosopher Martin Buber who became well known with the publication of a book that is translated to English in 1937 as *I and Thou* (Buber [1923] 1995; [1923] 1937). The English translation of the book's title is to some extent misleading as 'Thou' appears to relate to a distant God. 'I and You' would better emphasize what was of key importance to Buber, namely that other living beings are considered to be directly related to a living I, and can be addressed.

Martin Buber introduces in the book a qualitative difference for the relationships of the I-subject to the objects in the world on the one hand, and to the living beings in the world on the other hand. Yet, what an object is, is not always clear. A tree, for example, could be both You and It. There is a complexity and fluidity in Buber's thought that is rare for Western thinking. It could be considered important that Buber had – a long time before *I and You* was published – extensively studied both Laozi and Zhuangzi. A translation of Zhuangzi was published in 1910, a translation of Chinese folk tales in 1911. A commentary on Laozi's Daodejing was made in 1924 but remained unpublished (Herman 1996).

Gordon Pask, known for having contributed Conversation Theory to the development of second order cybernetics and for linking second order thinking to art and design, refers directly to Buber in his publications on a number of occasions (1978). Pask also mentions the influence of Gotthard Guenther, who had mapped the I–You relationship in logic – notably by pointing out that You can only be conceived in second order logic (Guenther [1957] 1991: 74–83).

There appears to be sufficient congruence between second-order cybernetics and traditional Chinese thought to assume that second order thinking has excellent potential to initiate a new dialogue between the East and the West.

On delight

The above-mentioned passages might have suggested that second order methodologies, such as those developed by Gordon Pask in Conversation Theory and in the extended Interactions of Actors Theory, could be based on one basic shift in assumptions. It might be better to consider that there are a number of shifts in thought that relate to each other. They are all also, if not equally, important. Conversation Theory assumes that we encounter other living beings in the world. They transcend as You the I-subject and cannot be conceived with the assistance of a two-valued classical logic. Only in this way other living beings can be conceived as having agency. Conversation in this context is the most basic and common activity of curious beings seeking to learn.

According to Pask, the experiences humans seek are those that transcend known experiences and can be described as 'aesthetically potent' (1970). Aesthetics typically emphasizes that encounters with art lead to new experiences that are not to be conceived of as finite. Art, so says Immanuel Kant, for example, 'has the effect of advancing the culture of the mental powers in the interests of social communication' [Kant [1790] 2007: 306], and this is what makes the encounter pleasurable in the widest sense. This pleasure is a higher form of learning. Pask appears to have something similar in mind when he states that human beings seek what is 'aesthetically potent'. What humans seek is delight. Every conversation holds the potential of becoming such an aesthetic experience of delight, but it is not predictable. The future is open. Because Conversation Theory addresses the open future of possible delight, it

also provides a suitable theory for all the activities that engage in making and creating – these activities of which we know that they are radically oriented towards a future as an unknown, art and design.

Second-order thinking is essentially poetic, and in this way it can be set into relation to the above-mentioned tradition in Chinese thought and art. Both forego prediction to embrace the potentiality of tomorrow's delights.

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