

Re-viewing Self and Societal Development from a Postformal Perspective: An Artistic De-concealiation, Reconciliation and Trans-formation

Marc G. Lucas¹

Abstract: The aim of this paper is to attempt to do justice to the chosen topic, including regarding its design. In a conscious distinction from the more conventional, materialistic, rationalistic, and quantitative approaches that prevail today in the economic and social sciences, the focus of this study will first be placed on consideration of images, contextualising the way in which I perceive them (first person perspective). Thus the paper is structured along sequential instances of experience and concomitant reflection bringing together such different paradigmatic positions as artistic and scientific approaches to individual and collective developments within an integrated approach that includes and transcends conventional thought. Together with statements from several artists and their works of visual arts (second person perspective) and in a mutual exchange with third person approaches from current psychological, economic, and neuro-scientific debates this will create an integrated systemic image, which in particular allows a deeper look into the underlying overall developmental theme. Every section of the article will be introduced by two correspondent statements, one written from an artistic more introspective perspective and one from a philosophical or scientific position to point out the main tension experienced and discussed within the section. Main aim is to allow to arise cross-fertilization in the sense of a hermeneutic circle. This circle finds its dynamically-sustaining shape in the form of a Mobius strip. Philosophical contributions in particular from phenomenology and complexity theory complete the picture, thus creating a conscious draft, which is aware of its own subjectivity. Ultimately the simultaneous inclusion of artistic and creative skills carried out in this article, goes beyond individual paradigms of a formal logic inherent in existing theories of development toward a more inclusive and visionary logic of the art looked at/and artistic lens seen through.

The numerous paintings and other visual art referred to in this paper cannot be included in the text due to existing image copyright. However they are clearly identified by the mention of each title so that they can be retraced using popular search engines on the Internet. I hope that readers interested in a deeper understanding can gain their own pleasure and inspiration from this paper when (re)searching the paintings as well.

¹ **Marc Lucas** is professor of media-, economic and business psychology at University for Media, Communication and Economics (HMKW) in Cologne, Germany as well as founder of Lucoco Lucas Consulting & Counseling. His main interests are in the integration of such diverse fields as adult development, neuro-leadership, organizational trauma prevention, crisis-management, and arts-inspired qualitative research as well as meta-theorizing.
m.lucas@hmkw.de



Keywords: adult development, art, dual-process theory, epistemology, inclusive logic, integration, integrative complexity, knowledge, neuro-psycho-economics, postformal reasoning.

The Experience of Being Lead into (intro ducere) Intro-spection and Ex-(s)pectation - in Frankfurt's Schirn Kunsthalle, 2011

Words of science and all other attempts at description are ways of concealing phenomena rather than elucidating them. (Merleau-Ponty, 1969, p. 21)

corresponds to

The artist has the most important task to fulfil in our society, since all other fields are apparently a failure. That is why the artist must ensure and contribute to the world's renewal. Humanity needs to be shown a new way. (Hundertwasser, 1982 taken from Hirsch, 2011, p. 173)

After a demanding day of consultancy discussing the issue of crisis prevention with a company in the tourism industry I, shortly before closing time, “took my-self” off to a special exhibition displaying works by the French painter Gustave Courbet. My gaze was captivated by a self-portrait. The artist Courbet stands considering what is probably one of his artworks, although you cannot see it. With wide eyes, his hands tearing at his hair, you see him as "The Desperate Man" (1844/45). What makes him so desperate are internal thought processes which are not directly revealed to the viewer. So is there really nothing to see? The painter Mark Rothko said “*There is no such thing as a good painting about nothing*” (Johnson, 1982, p. 14). After some time I read a statement by Brough (2012) which relates to the experience previously made:

Paintings that matter are about something that matters. But precisely because the painting itself, as an image, has the peculiar nature of being “nothing” that it can be about something. Images enrich our experience by folding into themselves the world and our relation to it, our feelings and our beliefs, offering them to our contemplation and bringing their truth before us, moving and delighting us. Though images may be nothing real, nothing embraces reality better. (p. 562)

From a neuro-scientific perspective, according to Kahneman (2011), what happens at the original art encounter creates a priming effect on the viewer. The viewer's thoughts are steered in a certain direction, associating their current perception with appropriate thoughts. Even on an emotional level, processes are set in motion, which are correlated in terms of neuro-scientific findings with the firing of mirror neurons (Rizzolatti & Sinigaglia, 2007). At the exhibition out of the chaos and turmoil that the contemplation of such an image and the uncertainty about the underlying content of what is being viewed elicit, memories of other paintings and engravings, which at their time elicited similar turmoil, are evoked. The internal picture collection is quickly reduced to a few examples which are historical precedents to the picture currently being viewed. Courbet's gaze can be compared to the frightening gaze of a chimera in Fuseli's "The Nightmare" (first version from 1781). A pale (and possibly wise) woman is depicted on a bed, helplessly exposed to this ghostly creature and an ape-like (animalistically prehuman) demon. In Goya's

1797 painting, "The Sleep of Reason Produces Monsters", a central figure has also fallen asleep and is surrounded by creatures of the night. What looks like bats in the shadows turns out on closer inspection to be an owl, a bird of wisdom. For the viewer this is a sign of a dialectically charged relationship in the suspense of a whole era between the early progressive forerunners of the French Revolution and their decline into post-revolutionary restoration. The synthetically removed dialectic is symbolically surrounded by reason, associated with light (the Enlightenment, siècle des lumieres), and emotions banned to the darkness, hence the shadows. That the "Nightmare" was exhibited in exactly the same year in which Kant (1781) defined "ratio" as a universal instance of judgement in his "Critique of Pure Reason" seems, bearing this in mind, to be more by design than by accident. From today's perspective, one could agree with neuro-philosopher Metzinger (2009, p.17) that *"many deep forms of conscious self-experience have become all but impossible due to philosophical enlightenment and the rise of science and technology."* From earlier social-philosophical contributions, in particular from the Frankfurt School, we are also aware of one of these tensions and contradictions of early modern critiques of a simple glorification of the Enlightenment. Horkheimer and Adorno (1944) took such considerations as a basis for their seminal work "Dialektik der Aufklärung" (Dialectic of Enlightenment). And as is so often the case, there are notable artistic contributions, and those borrowed from art, which prematurely anticipate such ideas from creative material. For example, Hugo (1827) expressed *"even the mortal part of [dualistically imagined] people, the counterpart of reason, the naturalistic, the bodily, whose displacement is increasingly proven by the proponents of Enlightenment to be an illusion, should come into its own right in art."* And Hegel (1979), the forefather and father figure of dialectic, wrote in his lectures on the history of philosophy from 1819 *"The great presumption that reason is received in the world on this side is then nothing more than a belief in providence, simply by other means."*

Where science often comes along as a desolater of basic assumptions and does so apparently without prejudice, is seemingly the point at which art, in turn, can better shed light on historical relationships and inter- and disruptions in the central motifs of an era. It can do this precisely, because it was banished to the shadows by the science since the age of Enlightenment. Precisely inasmuch as the mainly representational function of art ended at the time of the French Revolution, almost exclusively due to a lack of customers placing commissions, artists had to find a new way to conduct business and define themselves. However, it was exactly this conjuncture that made their situation difficult and frequently even prevented them working. Eisner (2008) reveals the following picture of an era of upheaval.

Science's belief in reason became the driving force of that age. From then on art and its possible contributions were banned from the conscious(ness) approaches of enlightenment. Part of the reason for the separation of the arts from matters epistemological pertains to the belief, a true one I would argue, that the arts are largely forms that generate emotion.
(p. 3)

The artist found himself here forced into the position of a jester who had no choice but to hold up a mirror to society in order to be seen. Michel (2006) commented on this as *"Irrational, sentimental, romantic, poetic, emotional and intuitive art became a complementary element to dominant self-concepts and worldviews. Pictures had the mission to bring us in contact with the subsurface of reason"* (p.117). This changing function in part pushes art drastically to the

forefront and does this, for example, with three works that revolve around exactly these epochal changes in France, from the glorified image of the Sun King Louis XIV, to Delacroix's Revolution Painting (1830), to Siegmund Polke's 1988 work entitled "Liberte, Egalite, Fraternite" on which the guillotined and impaled heads of revolutionary leaders can be seen after the revolution had "devoured their children," in line with the famous quote by revolutionary Vergniaud of 31.10.1793. In the case of Polke as well as other contemporary artists like Förgs with his "beheaded bronze heads on iron rods" (1990), and Baselitz's "lying boneheads" from the early 1980's such artwork can be seen as anticipatory intuitions of the later Eastern European revolutions. Especially with contemporary artists such as the ones named above, it can be deducted that such a trend is not only historically traceable, but is always present in its treatment of things which are as yet incomplete and at the same time invoking the burgeoning new. This is the repeated theme of grand theorists, among other things, for example, in Beck & Cowan's (2005) words that we are going forward and backward at the same time, or when Scharmer (2009) as part of his theory calls to lead from the emerging future. Morin (2008) writes about the consequences of such knowledge as part of his new complexity paradigm when he states

But what we are persuaded of is that if our current logico-mathematical apparatus corresponds to certain aspects of phenomenal reality it does not correspond to its truly complex aspects. That means that our logic has to develop itself, and go beyond itself in the direction of complexity. It is here that, in spite of his deep sense of the logic of biological organization, Piaget stopped at the edge of the Rubicon and sought only to accommodate living organization at the previously established logico-mathematic formalization. (p. 21)

For it is obviously the whole structure of the system of thought that is finding itself thoroughly shaken and transformed. (p. 35)

This segment has begun with the experience of a work of art by Gustave Courbet. By citing Morin on the issue of complexity it finally has led to recent developments within adult developmental psychology and consciousness studies. Consequently it is closed with a déjà vu like experience in May 2014. After speaking at the Symposium of the European Society for Research on Adult Development in Helsinki, I visited Kiasma Museum of Contemporary Art. While strolling inside the building with its staircases winding in different directions and with its slope like curving corridors, my gaze was captivated by another intensive gaze of a desperate person within a context of trauma. Having a closer look at "The Silence of Nduwayezu" (1997) was a moving experience for me. It so authentically made visible how overwhelming it can be to look into another person's eyes and how in these eyes for a compassionate observer can be revealed how frozen the whole self can become with such a traumatic experience as this child's one. In piling a million identical slides up in the artist's installation, I got the impression of a monument for all the people with similar tragedies. The installation exposed, how a living/life-Gestalt, that should be light, able to develop and composed of a myriad of different "Augenblicke" (lucid intervals), which should be shaped into an individual trans-form of sense and meaning by the individuals themselves, can in such cases be shaped into a frozen, dark and uniform mountain of inescapability. Nevertheless human development happens against and sometimes in light of such experiences and this is, what psychologists like Frankl (2006, originally 1946) and later Antonovsky (1987) reported within their existential and positive approaches to psychology. Newer approaches (e.g. Slavin-Spenny et al., 2010; Tedeschi &

Calhoun, 2004) turn to the sometimes positive developmental impulses such a crisis can foster as well, while not neglecting the constraints which are nevertheless remaining. With the term “post traumatic growth” such a potentially wisdom oriented form of a postformal adult development after traumatic experiences is being investigated within contemporary psychology.

Most of the general adult developmental approaches heavily lean on the seminal work of Jean Piaget (1954) on individual cognitive development though. In his perspective human development ultimately leads to a final stage of formal operations only within adolescents and adults. The process of such a development can be described in the qualitative reorganization and refinement of meaning-making systems with a trend towards more complex and increasingly differentiated and integrated definitions of self and of the world. This development is driven by the tasks a highly complex environment has for the individual and the need to adopt and accommodate with this environment. In line with the conservative nature of mankind, in periods of environmental stability individuals would tend to assume that their models of the world are true replicas of it and refrain from further developmental endeavours which diminishes their potential for more complex and more integrative reasoning which can be seen as stages of development. Recent approaches within the field of adult development and structure genetic developmental psychology (Commons, 2008; Kegan, 1994) go beyond the assumption that human development is primarily of a cognitive nature and reach the final stage during adolescence. In their view postformal stages can best be described by a willingness of the individual to question the conventions and meaning structures which limit reasoning. As early as in the 1980’s adult developmental psychologists like Basseches (1980) described an advanced developmental stage that goes beyond adolescent formal operations towards a more creative postformal-operational stage of organization which reflects dialectical thinking. Leaders with a centre of reasoning in such a stage of nonlinear reasoning often adopt a systemic, long-term vision of complex developments as e.g. within their organisations and therefore can be identified as effective change agents (Rooke & Torbert, 2005). Peng and Nisbett (1999) framed the term “integrative complexity” for such an orientation. Finally Kallio (2011) argued for a postformal stage called “integration”, which involves the synthesis of opposing systems of knowledge into a “whole that is greater than the sum of its parts” – a phrase taken from Gestaltpsychology.

In the following segment I will argue for an artistic practice that has potential to give access to such more integrative and more complex stages of adult development by transcending and integrating formal reasoning and reveal the historic process that especially in the European culture has led to such a human development on the collective level. Within an approach that follows a more inclusive logic (Nolt, 2010) it is not only assumed but also lined out, that paradigmatic stances that are normally regarded as antagonistic can be temporarily reconciled to create complex transdisciplinary knowledge (McGregor, 2015).

Light and Shadow as Linked Phenomena Within the Artistic Endeavour: De-concealing Visual Expressions. Neuroscience Spring School of BION (Giessen) May 2014

Prior to assuming roles as academics and learning the language of the academy, we did not put names on how we (and others) came to know the world. But, as professors, we

quickly came to know that our jobs were in large part defined by our abilities to attach words of explanation to phenomena, experiences, processes, contexts, and systems. We soon discovered, however, that the predominant language – or discourse – of the academy did not ring true to us or how we perceived our task.

We quickly became disillusioned by the moat of science and mysticism built to keep researchers in and communities out of the ivory tower. ... The language of the academy and all that it symbolized fell short in its ability to capture and communicate the complexity of human experience in all its diversity. (Cole & Knowles, 2008, p. 57)

corresponds to

To paint is to release extraordinary powers, because painting gives you a chance to invent a language and to venture into distant regions which are a long way off. I believe that painting takes us deeper than anything else into the unknown. (Hundertwasser, 1973 taken from Hirsch, 2011, p. 143)

Within the scope of several planned and implemented neuro-economic publications that attempt to link current dual-process decision theories with adult developmental approaches (Lucas & Caspers, 2014; Lucas, 2013; Lucas, 2012; Caspers et al., 2011, Caspers et al., 2012), I took part in an event at the Bender Institute of Neurosciences (BION) of the University of Giessen. I considered many new impressions, in particular relating to carrying out such studies, on the basis of their epistemological dubiousness. When researching topics of interest with the aim of presenting research design possibly of relevance to the management team, an article by Vessel, Starr & Rubin (2013) caught my eye. In this paper, references to the importance of looking at art for the transformation of the self-concept are given from a neuro-aesthetic perspective. The starting point of the search was Starbatty's (2009) fundamental criticism on what he views as the outdated image of humans as "homo economicus", which he formulated in his book "das Menschenbild in den Wirtschaftswissenschaften" (The image of humanity in economics) as well as Rost's (2008) paradigmatic critique of the homo oeconomicus as a fiction of standard economics and Huebner's (2005) "Dark Age" of innovation he frames for the condition modern economics are in. The dotcom bubble of 2000 and the financial crisis which began in late 2007 immediately preceded these conservative and progressive author's contributions, which in the eyes of many people is seen as a moral judgment on the uncritical market idolisation of our post-industrial fiscally organised and structured society. Pareto (1906) originally stated that, as a basis of core economic theories, homo economicus should be understood to mean use and performance optimisation in the sense of rational maximizing choice. This optimistic human image of the economy continued the absolute rationalism of the early Enlightenment and expanded it to the operational performance of underlying meritocracy, but obscured the multi-dimensional nature of people and their deeper dialectic. However the pure homo oeconomicus could not be found within any human society in empirical cross-cultural research but within chimpanzees (Jensen, Call & Tomasello, 2013). Instead of a pure rationalistic maximizing behaviour, neuro-scientific dual-process theories of cognitive functioning postulate a dual nature of thought under varying titles and ascriptions (a compilation can be found in Evans, 2008) and with a conscious and a (when used in a more complementary way possibly superior) sub-conscious part (Evans & Stanovich, 2013).

Most often such theories distinguish between autonomously cued intuitive or “Type 1” processes that require few capacities traditionally seen as “cognitive resources” on the one hand and “more deliberate” “Type 2” processes that require working memory capacity on the other (Evans & Stanovich, 2013). The latter can be equated with Piagetian formal operations within developmental psychology. In concordance with Rosch (2008) and Depraz, Varela & Vermersch (2003) a necessary complementary way to foster postformal consciousness development focuses on developing the ability to grasp the essence of phenomena without going through “Type 2”-like mental analysis in and as an act of unprecedented creativity (Baron & Cayer, 2011). This act goes beyond cognitively recognizing and reframing meaning structures which in the end does not help to see beyond these structures. It thereby establishes a second form of “Type 1” process. In Rosch’s words this form of intelligence involves suspension of preconceptions and provides access to direct knowledge, which is imbued with basic wisdom.

According to Baron and Cayer (2011)

Overall this second way of fostering one’s own consciousness development seems to give rise to states of consciousness that are characteristic of the very advanced stages of consciousness, in which the subject-object duality subsides. These valuable experiences can momentarily increase the soundness of our decisions and indicate the path toward continued personal development. (p. 350)

Art has long been pre-configuring such ideas with e.g., the painter Carl Gustav Carus (1846) writing before Freud *“The key to the understanding of the nature of the conscious inner life of man lies in the region of the subconscious”*, or as Victor Hugo (1827) before Jung wrote on the subject of the collective shadow *“Dealing with the darkness is the key to knowledge of the world.”*

The shadows therefore already before Jung’s contribution to psychology symbolises the negative, socially undesirable, and therefore suppressed personality traits, states and levels of development that are relegated to the unconscious. Looking to the future, the author of the surrealist manifesto Andre Breton (1924, p. 21) writes *“I believe in the future resolution of these apparently contradictory conditions of dream and reality into a kind of absolute reality, if you may so express it: surreality.”* Such statements, however, make the artist suspicious to the economist. Freiesleben (2010) provides the alternative concept to the self-image of managers.

He attracts and repels, because he is both negation and reference to a synthesis ... thus he becomes a shadow, devalued. He dreams, he is unrealistic, he is undisciplined, his work is without plan or goal. He takes liberties where conventions and rules determine human interaction. The result is, as expected, unprofitable art. ... But the entrepreneur too has his clichés, in which he likes to be reflected: he is hardworking and ambitious, disciplined and responsible, his thoughts and actions are based on facts and figures, he is dynamic and assertive, always resilient, decisive, and willing to take risks. He likes being homo economicus, which defines economics for him as the ideal type of economic activity. When he renders his business account, the profit earned is the rightful proof of his power. (p. 114)

Its dark side shows a meritocracy so composed that this early Enlightenment paradigm is reaching its limits, thus creating paradoxes and contradictions. As an example, the exclusion and devaluation of that which does not fit into the scope of the work should be mentioned. This does not only apply to the artist, but even more so to the long-term unemployed, who challenge our self-image and societal image. The long-term study "Deutsche Zustände" (German Conditions) by the Bielefeld Institute for Conflict and Violence (Heitmeyer, 2011) showed, for example, that 56% of respondents have a disparaging or hostile attitude towards the long-term unemployed. The director of the Institute attributed this to the fact that economic thinking pervades all aspects of life and the social division of society increases despite falling unemployment. Using representative surveys, the study has explored the causes of "group focused misanthropy" since 2002. Milton Friedman's neo-liberal theme from 1970 (The New York Times Magazine, September 13), "*The business of business is business. There is only one social responsibility of business - to increase its profits*" appears, however, passé. This is not least since the "Economist" (2010) showed an image displaying the textbook "Modern Economic Theory" melting with underneath the title "Where it went wrong – and how the crisis is changing it". In a corresponding way Chris Boyd in the same year finished his plastic "The Book of Darcebu," which exhibits a volcanic eruption to break forth through a book that was apparently constructed of solid metal. Instead, now the way Starbatty (2009) worded it may apply, namely

Homo economicus, as economists envision him - humunculus economicus would be better - is not the description of a man of flesh and blood, but an extremely simplified artificial model created intentionally for the purposes of analysis in the context of study. (p. 17)

Genuine neuro-psycho-economic theories emphasise, for example, the limited rationality of decisions which are not made purely rationally and that homo economicus lacks an emotional basis (Peters & Ghadiri, 2011). Gigerenzer (2007) transfers this to management as an appeal for more "gut decisions". With this the now stronger neuro-psycho economic authored economics begin to become more flexible to current economic paradigms, which are more strongly constructivist orientated. In fact, current postmodern contributions demonstrate an epistemologically problematic position in their primarily deconstructive orientation. Hence their explanatory contribution is ultimately limited. When Metzinger (2009) postulates the "Ego-Tunnel" as a new image of man, he means the following.

An Ego Tunnel is a consciousness tunnel that has evolved the additional property of creating a robust first-person perspective, a subjective view of the world. It is a consciousness tunnel plus an apparent self. We inescapably live our conscious live through the Ego Tunnel. (p. 11)

Out there in front of your eyes, there is just an ocean of electromagnetic radiation, a wild and raging mixture of different wavelengths. Most of them are invisible to you and can never become part of your selective and low-dimensional conscious model of reality. (p. 20)

Scientifically there is only this incessant, self-regulating flow of neural information-processing, constantly perturbed and modulated by sensory input and cognition. (p. 23)

Ultimately, this definition of humanity is as ego which is equal to nothing in a self-constructed epiphenomenal tunnel. This means the ultimate consequence of the scientific endeavour into the mind leads to the negation of a human image and at the same time the negation of everything else, thus everything of importance. Thereby society has reached exactly the point to which rationally constituted science has led and indeed could only lead since the beginning of the modern era and its postmodern extrapolation. Bohm (1996) thus claimed that scientific knowledge is infected with misinformation which pollutes human experience and leads to an “endarkenment” of consciousness. A dis-continuation, would have to explicitly include a process-oriented, integrated-systemic and developmental perspective that considers first, second and third person approaches to the observation of consciousness. Lawrence (2005) describes from such a perspective, *"Mind is not an identifiable entity, it is a transformative process"* (p. 28).

A morphological psychology (Salber, 2003), which is orientated towards perspectives of Ganzheits- und Gestalt-psychology, applies an “art-inspired psychologic” to the self, which is not only anchored in mankind or in his mind, and which can only self-assess via change. Thus, the very different experiential modes of experience, orientated on impirical (in addition to empirical) knowledge, become significant. Bearing this in mind, Kozhevnikov, Evans & Kosslyn (2014) can summarise the findings of their extensive studies on "Cognitive Style as Environmentally Sensitive Individual Differences in Cognition" in the following way:

Most visual artists described their work-related thoughts as spontaneous, uncontrolled and outside of – or even against – their own conscious wills. They reported that inspiration could come to them almost constantly and could be triggered by life and work events, emotional experiences, and visual experiences. In contrast, scientists typically reported that they were in complete control of their ideas, in terms of both frequency/time of occurrence and content. Furthermore research findings suggest that visual artists are usually more skilled in the holistic processing of pictures than are scientists.

Moreover a number of studies indicated that differences between visual artists and scientists along the sequential/holistic dimension not only appear at the perceptual level but extended to complex problem solving, such as abstract conceptual processing and approaches implemented in professional creative work.

Despite the reported differences between the analytical, rule-based approach style adopted by scientists and the intuitive style adopted by artists, substantial historical evidence suggests that intuition plays a major role in scientific work...different scientists may come to the same discovery using analytical or intuitive methods, which suggests that these methods may be equally important in science... Overall the differences between professionals in analytical versus intuitive processing indicate that, although visual artists typically appear to be intuitive and emotional and scientists typically appear to be rule driven and rational, the task sometimes may dictate the approach.

Scientists who prefer an analytical style at lower levels of information processing might seek intuitive understanding at higher levels of information processing. They often adopt a

sequential style of information processing and, at the same time, an intuitive cognitive style. (pp. 20-21)

Within organization studies such an orientation is being discussed under the term “adaptive expertise” (Paletz et al., 2013) as a creative and at the same time efficient cognitive style of expert innovativeness within individuals and teams. It is being found especially in pressing, complex and new business situations when existing strategies are inappropriate. Such a view - incidentally, a view that is often called the view of the dark and the shadows - has long been self-evident to artists. As an example, here are only two contributions by artists based on their creative process and two theoretical contributions from the fields of psychology and art history. “Close your bodily eye so that you see your image first with the mind's eye. Then bring to the light what you see in the dark, that it may react upon others from the outside inwards” (Friedrich, 1829 taken from Hinz, 1968, p. 94).

When the free and compacted expression of my personal impressions can be seen in my romanticism, my renunciation of the tediously similar characters in schools and my aversion to academic formulae, then I must confess that I am a romantic. (Baudelaire, 1856 taken from Muther, Dent & Dutton, 2010)

Artists have always used their work to show the culture what it does not see otherwise. Art often exposes the negative space that forms a background, allowing the objective to stand out. (Higgs, 2008, p. 553)

Mario Praz (1981) uses the following statement by Thomas Hardy as leitmotif for his standard work “Die schwarze Romantik” (Dark Romantics).

As in looking at a carpet, by following one colour a certain pattern is suggested, by following another colour, another; so in life the seer should watch the complementary pattern among several things which his idiosyncrasy moves him to observe. (p. 25)

This obviously does not only apply to scientists and artists. In the article by Vessel, Starr & Rubin mentioned at the beginning of this section, based on an orientation towards materialistic and scientific research, it was described, how even the experience of exchange and of encountering contemporary art can again and again guide in such a "self-creative" process of becoming and understanding.

We propose that certain artworks can resonate with an individual's sense of self in a manner that has well-defined physiological correlates and consequences: the neural representations of those external stimuli obtain access to the neural substrates and processes concerned with the self – namely the regions of the DMN. This access, which other external stimuli normally do not obtain, allows the representation of the artwork to interact with the neural processes related to the self, affect them, and possibly even be incorporated into them i.e. into the future, evolving representation of the self.

Unlike in self-referential emotions, in aesthetic experience the relation to others is not focused on appraisal but on sense of understanding, gained insight and meaning. In fact self-relevance is an integral aspect of intensely moving aesthetic experience.

A co-activation of the DMN and stimulus-driven sensory system as we have observed for strongly moving aesthetic experiences has so far not been reported in any other context. Yet, if our self-identity is to be influenced by the world we inhabit, it may be that similar moments should occur with greater frequency than would be expected based on the current conceptualization of the DMN as a network that is invariably suppressed during mental activity which is directed at the external world.

By that view, much of our existence may be well-served by switching between periods of dominance of externally-directed brain networks over the DMN and vice versa, but those periods are punctuated by significant moments when our brains detect a certain harmony between the external world and our internal representation of the self – allowing the two systems to co-activate, interact, influence and reshape each other. (Vessel; Starr & Rubin, 2013, Art 258, p. 6)

Their findings show that the activation of the DMN was even higher than found in any research on the correlation of consciousness and meditative practice which is in line with findings from the research of Eisenberg & Miron-Spektor (2014), which shows development of creativity only among individuals with high levels of cognitive development but low levels of so called naïve dialectical thinking – a term phrased for Eastern meditative based reasoning. Newer media science studies support this view. Vorderer (2011) emphasised that mental gratification may only be commonly explicable through a combination of intellectual and aesthetic levels. Schwan & Hesse (2004) posit a co-evolution of the media and cognitive apparatus. They emphasise that the media have generated new patterns of perception. And Batinic & Appel (2008) add that not only does the intensive use of computer games not corrupt the visual perception of reality, but on the contrary even intensifies it. In this context, they argue for a prevailing visual-cognitive restructuring of an entire generation.

This phenomenon can also be easily traced on a collective level. From a sociological perspective it is interesting, for example, to list most visited museum exhibitions in different European countries in recent years. The following crowd puller art exhibitions on a national level fit well into this image:

- Gothic Nightmares. Fuseli, Blake and the Romantic Imagination (Tate, London, 2006)
- Edward Munch and the Uncanny (Museum Quarter, Vienna, 2009)
- Crime & chatiment (Musée d'Orsay, Paris, 2010)
- L'Europe des esprits (Straßburg and Bern, 2011)
- Constructions of the irrational in the art of Fuseli to the present day (Neues Museum, Nuremberg, 2011)
- Black Romance (Städel Museum, Frankfurt, 2012)

This segment has argued for a fundamental ongoing and in conclusion postformal development within the individual and society as well as science being part of it. Examples of

specific contributions of the arts to such societal and individual development have been exhibited. Different perspectives have been taken to make the case for a more visionary and inclusive approach to developmental and consciousness studies. The next segment will shed light on the methods used and the contents and predictions of such contributions on an individual and collective level.

The New Being in Contemporary Art and for Future Developments: Reconciliations - EGOS Conference Rotterdam, July 2014

When I paint, I am dreaming. I mean, when the dream is over, I can't remember what I dreamt, but the picture is there. It's the fruit of the dream. I put aside a part of my personality. It comes from somewhere else. I mean, I switch of my intellect, I let something else take over. (Hundertwasser, 1973 taken from Hirsch 2011, p. 138)

corresponds to

Art-based research can be defined as the system(at)ic use of the artistic process, the actual making of artistic expressions in all the different forms of the arts, as a primary way of understanding and examining experience and meaning by both researchers [artists] and the people they involve in their studies [e.g. observers]. (McNiff, 2008, p. 29)

I was at a conference of the European Group for Organizational Studies. There were very stimulating conversations in a standing working group on "Art, Design and Organization". The subsequent discussions with two professorial colleagues with leanings towards integral meta-theorizing also promoted interest in art-inspired questions about leadership, organization and societal trends. In preparation for a contribution, a debate took place over the important article by Eisner (2008), on "Art and Knowledge", among other things. Here in particular, the issue of what contemporary art is able to offer to leadership and organization research in terms of findings and paths of knowledge was investigated - and if, indeed, of course it may be a matter of further discussion as to whether this should be a role of such research. Niglas (2010) for example acknowledges art in her multidimensional Model of Research Methodology as one of the many valid paths to scientific knowledge. Eisner himself in fact put together four such contributions for leadership and organization research.

First the arts address the qualitative nuances of situations. By learning how to read the images the arts make possible, awareness of those nuances is made possible. The examination of perception of a painting is as much a kind of reading as a text might be. One needs to learn how to see as well as learn how to read in the customary sense (of trying to understand)....

A second contribution the arts make to knowledge has to do with empathic feeling... that makes action possible.

A third contribution the arts make to knowledge has to do with the provision of a fresh perspective so that our old habits of mind do not dominate our reactions with stock

responses. ... To the extent to which we need to give up some of our old habits, the arts are willing and helpful allies in such a pursuit.

Finally, ... the arts tell us something about our own capacities to experience the affective response to life that the arts evoke. (pp. 10-11, Italics in the original)

A list of answers to the initial question, based on experience and concrete encounters with contemporary art, could, in my opinion, exist in the following central themes of contemporary art:

1. Pattern recognition of long-term critical paths
2. Intuition and presencing
3. Independence and complementarity rather than dialectical appropriation
4. Tunnel and head metaphors of underground(breaking) developments
5. Social complexity, blind spots within society
6. System theory and sustainability
7. Virtuality and constructed multi-reality as counter-worlds
8. Metacognition, transcognition, and collective embodiment
9. Integrated trans-formal synthesis of the arts

In the course of a single article it is evidently impossible to discuss all aspects of these eight trends, which for the time being have only been mentioned. Therefore in the following these aspects will only be briefly addressed and some well-known artists and their works will be referred to as representative of these themes.

1) Pattern recognition of long-term critical paths has already been explained by means of the historical outline carried out in the first section, and in particular on the basis of a work by Sigmar Polke. The artistic view here is focused on the past and attempts in particular to trace pictorial long-term trends. With respect to dealing with the topic of complexity, it has become clear that nowadays the ability to lead always implies long-term development beyond daily events and to be able to recognise disruptive paths (Deeg, 2009).

2) It is particularly important of course not only to look at the past, but also to recognise future developments. Methods of such (p)recognition are currently being discussed under a variety of headings in management training. Gigerenzer (2007) in this context frames the term "intuition." In the field of Organizational Crisis Management the ability to detect so called "weak signals" (Mendonca et al., 2004) can be seen as a crucial similar task. Senge et al. (2005) and Scharmer (2009) express such ideas using the keyword "presencing." In the field of artistic creation, such phenomena are well known and are often dealt with. This applies particular in surrealism. For example three surrealist works from 1932 are referred to here, all created simultaneously but completely independently from each other, and which are classified as having anticipated future catastrophic political events: Erwin Blumenfeld's "Skull;" Salvador Dali's "Ballerina as Skull;" and Max Ernst's "Europe after the Rain." Hans Hollein's performance of 1969, in which the artist exhibits on an open field with a typewriter and telephone sealed off only by head-high transparent sheets, which he dubbed "The mobile office – from a blessing to a curse," could be considered another example here of anticipation of the echoes of the technology-driven trend

towards virtualisation of the economy. And Jean Tinguely's early self-moving and self-destructive installations such as "Without Title, Fontaine" (1960) give an impression of death of innovation, overproduction, meaningless consumerism and planned obsolescence of junk products (Gordon, 2014; Cowen, 2011) which leads to new and emergent macroeconomic models of a post-growth Next Economy which are currently discussed under terms such as e.g. Enoughness, Exnovation, Renovation and "Décroissance" (Degrowth) (Latouche, 2004).

3) In this sense, contemporary art often refers back to current trends towards the appropriation of artistic and other freedoms in terms of pure performance-driven exploitation of thought. Csikszentmihalyi's (2008) research on the phenomenon of flow, which in particular began on and with artists, in business practice however was degenerated and deformed by attempts of an economic planning. Thus the impossible question of "manufacturability" of the flow came to the foreground of economic study of the topic. The current art world is tackling the impossibility of such trends towards utilization. Stefan Panhans (2004) addresses this in his work when he presents the art world as a casting show and titles it accordingly "You actually just have to be you, just super." Agnes Husslein-Arco (2009) also states in her treatment of art history "No time, busy - exhausted self/borderless ability" that

In a world of the cycle of self-exertion, artists have become role models of a work situation in which unlimited creativity, smart self-marketing, self-motivated productivity, passionate commitment, and innovative ways of living and working are becoming increasingly important for management and employee entrepreneurs. Thus art becomes the host of the neoliberal approach of Ehrenberg's thesis of transporting the "exhausted self" into social reality. (p. 6)

Under such conditions the artists of the group "neg-otium" push it to the extreme, by consciously playing with the Latin terms "otium" for leisure and "negotium" for labor. Echoing this, Werner Reiterer (2006) depicts himself as a hollowed lifesize doll, which seems to breathe only sporadically, and titles this work "The last heartbeat before dying frozen as a loop." Nicole Six and Paul Petritsch (2005) make portrait photos into series that seem to come from a photo box. The subjects appear so tired that over the course of the six photos they fall asleep. The collection is entitled "I'm too tired to tell you." Olaf Nicolai challenges the viewer to rotate a wheel of fortune, on which there are (as in society) only two options available, namely "Enjoy / Survive." Simon Moller (2010) exhibits himself as part of a performance sitting at the piano which, true to the chosen motto "'Melody Malady," the artist resolutely refuses to play. Finally Laura von Niederhäusern (2012) films schoolchildren at play in her video performance "Journey to Jerusalem," in which there is one chair less available each round until finally there is only a single chair for one child left. This radical critique of the logic displacement in a meritocracy is aptly referred to with the threatening title "Or I write." The same logic of denial is portrayed in films and computer games, in particular in the various forms of representation of transhumanity. In anti-utopian games such as "Deus Ex," and feature films such as "Terminator," social development trends are questioned and it is always outsiders who become heroes. In media psychology the use of smartphones as an "extended mind" is being investigated and described as a trans-humanistic way to supplant especially analytic "System 2" thinking leading to more intuitive cognitive styles within humans in a coupled cognitive human-computer system that goes beyond our brain. Barr et al. (2015) conclude in light of increasing accessibility to increasingly

powerful personal technological devices such as smart watches, Google Glass etc. *“people may offload [analytic] thinking to technology, which in turn demands that psychological science understand the meshing of mind and media to adequately characterize human experience and cognition in the modern era of post-biological intelligence”* (p. 473. Italics in the original).

4) If contemporary art turns to a design of future scenarios, it often does so with the visual metaphors of tunnels and heads thereby reflecting scientific and societal conditions as described by Metzinger’s ego tunnel. Here, the image designs of different media are, sometimes strikingly, alike. It is always the tunnel metaphor lying at the centre of the visual aesthetics here. Examples begin with the film "Stalker" by Russian director Andrei Tarkovsky (1979) and lead to Anselm Kiefer’s megaproject "Over your cities grass will grow" (1991 to 2008), up to current computer games and simulations such as the trailer for the latest edition of the Tomb Raider series (2013). What is known as CAVE (Constructed Automatic Virtual Environments), which are accessible virtual computer-generated spaces that can, for example, migrate through the human body, can be seen as another example of such a tunnel metaphor in contemporary media. Jeff Wall (1989), who in his photographic art, for example, with "The Drain & The Well" that shows people at the entrance of tunnels and chasms, or Thomas Demand (2006), who forms artificial caves from papier mâché, and artists like Conrad Shawcross, who installed his art such as "Strike a chord" (2009) in disused underground tunnels, can also be cited as examples in this regard. Moreover numerous works of art are vertical tunnels which convey an impression of a developmental perspective. Examples include James Turrell's (2011) "Above – Between – Below" and Ra Paulette's (2000) "Tree Cave – The vertical tunnel," an artificial tunnel that opens up towards the light through numerous pillars decorated as trees. The metaphor of the tunnel, however, shows on the whole how far the clear concept of social utopias of an advanced direction-focused one-dimensional logic of development has strayed into the unfathomable. In this light, Olafur Eliasson’s “Your spiral view” (2002) can be interpreted as the unification of the head and tunnel metaphors of contemporary art.

Constructed from flat faceted plates, this tunnel is accessible via steps... Once inside, visitors experience themselves reflected infinitely in the mirror-polished steel plates.
(Langen Foundation and Boros Foundation, 2015, p. 138)

The curator Veit Loers reflects on such art and summarizes, that all of the important and expensive contemporary artists have worked with body and heads. For him this stems from “inner canal tunnels.” At the same time, the tunnel is presented, and can be experienced by the viewer, as a kind of womb or cocoon; that is, as a kind of protective cover to prepare for a renewal and transformation. This is the case for example in Ainish Kapoor's gigantic installation "Leviathan" (2011).

5) Artists such as Gottfried Helnwein e.g. with “Inferno of the Innocents” (2011) or "The Child Works" (2011), and Bruce Neuman with “Double Poke in the Eye II” (1985) or Jonathan Meese and Tal R. (2005/2015) with their installation “Mother” devote themselves to the issue of violence as a blind spot in our society. A more systemic way of looking at society is offered by the artist Mark Lombardi with his "Political Sociograms," i.e. painted networks of power. Last but not least artists like Paul Laffoley with the collection “Secret Universe 2” (2011) directly response in an artistic way to the dominance of scientific inquiries to current trends and

developments within society. Such artists create visual expressions for grand theories of the past and present thereby reconciling art and science and bringing it in a renewed mutual exchange that goes beyond the linguistic and rationalistic limits still found today.

6) The Land Art founded by representatives such as Andy Goldsworthy also creates a network-like (eco-)systemic structure, however this is formed purely from materials that are found in nature and it is also only exhibited outdoors. The fact that they are exposed, conscious of the destruction caused by the forces of nature, emphasises and illustrates the fragility of our global ecosystem. Hundertwasser was one of the early proponents of ecological thinking with his images moving beyond the panel picture and out into spatial forms that integrated the surrounding architecture as soon as in the early 1950s and consequently introduced the concepts of minimal ecological footprint and restoring nature in cities with tree tenants in 1972 and his humus toilets, plant purification systems and storm-proof roof forests while writing

roof afforestation is the roof cover of the future. It will be natural to have a forest, or a wild meadow, or a vegetable garden on your roof. (Mikunda, 2011 taken from Hirsch, 2011, p. 187)

He thereby pioneered what is noticeably today, for example, in urban design throughout public space.

Tomas Saraceno (2009) pushes this embodied systemic thinking to the extremes with his fragile network, filling a large space, and being presented with the title "Galaxies Forming along Filaments" after the reciprocal link and dependence of even cosmic processes.

7) In addition to these world designs and stagings, it is in particular the virtual and constructed counter-world designs engendered by the possibilities of new technologies which inspire the creation of art. Several designs are often offered concurrently, in terms of constructivism confronting the viewer with their own structure of the world, while at the same time offering the possibility of different perspectives in terms of a multi-reality, and thus of keeping it in their consciousness, transforming it, and ultimately breaking it up with aperspectivity. This applies in particular and as an example to the work of Michael Somoroff (2004) "Querry II-IV," in which a woman, alluding to Richter's "Ema on the stairs" goes down a staircase in four different artistic representations of increasing computerised abstraction. The same motifs can be found in current filmmaking, for example, in the movie "The Matrix" (1999) by the Wachowski brothers or the Buddhism-inspired Dutch film "The Sea that thinks." Video art also deals with such issues. We can mention here Bill Viola's (1979) "The Reflecting Pool" as well as "I believe it is an image in light of the other". The importance of such earlier post-formal stages of development and thus more meta-perspective and complex views for the management of complex organisations is especially emphasised in the contributions of authors such as Rooke & Torbert (1998) and Vincent, Ward & Denson (2015). According to newer media psychology contributions, for example by Trepte and Reinecke (2013, pp. 137-138), it is a central feature of media consumption to influence our cognition and emotion and as a consequence to influence our behaviour in many ways. This happens in particular because our view of the world is changed. Reinecke et al. express (2012) non-hedonistic needs as fundamental media-related needs of a higher order of personal growth and individual development. Under the keyword Gamification,

such growth needs are processed among other things in games such as "Epic Win" and used in games such as "Superstruct" for the advancement of society. Oliver & Rainey (2011) and Oliver & Bartsch (2011) added to this that the choice of media is made based mainly on the subject, with which the user will grapple vigorously, and on the artistic value of the representation.

8) Artist and constructivist philosopher Olafur Eliasson (2008) also creates entirely new trans-cognitive realities. His artworks follow the guiding theme "Space is Process" which sometimes achieve the dimensions of urban planning and development, resulting in spaces which it should be possible to experience and physically perceive as an embodiment. For him, the creative process is no longer to be understood as an expression of the cognitive and artistic subjectivity of a "self-actualizing man", but as a social-emotional physical expression of an involved collective, as Simonton (1988) also defines it in Sternberg's (2011) "The Nature of Creativity" as "Creativity of Leadership and Chance." Thus a radical departure from the hidden ideologies of the "Great Man" is connected to transformative leadership. Eliason (2008) worded it explicitly in this context, "*this is what triggered my interest – the idea that you could reinterpret the meaning of the individual based on the experience of the artwork*" (p. 165. Italics in the original).

9) I would like to finish these explanations and lists of exemplary contemporary art with some artworks that can no longer be classified in a single genre. Kuspit (2013) refers to such overarching, mostly digital computer-generated creations in a real space of integrating art designs as synthesis of the arts or total work of arts. He expanded this by commenting "*No longer is the artist confined to familiar configuration. The artist can invent fantastic new configurations. Digital art can thus affect a profound alteration of consciousness itself.*" Hans Breder (2000-2005) "Mass & No Word: No Thing" can be mentioned as an example here, a space that seems to increasingly dissolve in fog or "The Financial Crisis (Session I-IV)" from the Superflex group, an installation that allows the viewer to enter a darkened room in which a slideshow of exemplary photographs is displayed on a large screen; the impact of the financial crisis on individuals and entire societies alternating with the cinematically presented instructions of a hypnotherapist, who gives the instruction, "*I want you to wake up feeling fresh, comfortable and happy.*" A circle is thus described that refers to the neuro-aesthetic contribution for self-trans-formation through artistic experience cited at the beginning of this article, thereby demonstrating opportunities for art-based post formal development.

Synopsis as Synthesis: A Trans-formative Mobius Strip at the Quadrennial Art Collection in Dusseldorf July 2014

And I dare say that the lines I trace with my feet on the pavement walking to the museum are more important than the lines I will find there hanging on the walls inside. And it pleases me enormously to see that the line I trace is never straight, never confused, but has a reason to be like this in every tiny part. (Hundertwasser, 1953, taken from Hirsch, 2011, p. 62)

corresponds to

When the content of our scientific discourse is abstract formulation, we are involved in the activity of looking for rather than in the direct experience of seeing. When one is

attempting to fathom the nature of things through the medium of abstractions, it is as though one were looking for something. From this view we see that epistemology is the domain of the human experience of looking for. This impulse of looking for drives the knowledge-building systems of human thought in science up to now. When one sees something as opposed to looking for it, one participates profoundly in the seen within a self-transformational process. (Petit, 2002, p. 105, Italics in the original)

If you ask the question of where and to what understanding the journey described here has taken me, you are entering another sphere of knowledge - and for this article, the last. Significantly, I found myself in a tunnel. This disused tunnel has been provided to Pauline M'Barek, a young artist, for her work as a part of the Quadrennial, a cross-museum art exhibition held in Dusseldorf every four years. Along with other works of art, she has filled the elongated tunnel with a huge, alternating white and black Moebius strip, "The tangible Border" (2014). It was possible to in/on a self-transforming way walk along the length of this Moebius strip and explore, and possibly assimilate, the aspects of light and shade in this dimension transcending trans-form. It inspired thoughts of the integrative visionary power of the arts by Joseph Nechvatal (2011) to flash through my mind. Manuela de Barros wrote in an internet article about such power of Nechvatal's "Noisy viral threat"

This is art with a brain, for sure. But when a multitude of visions, Plato's cave, the end of art, virtual data, viral de-con-struction, and environmental noise are put side by side, the message and meaning becomes clear. How can we step up from illusion to understanding? How do we go from shadow to light? And how can we break the chains that retain us?

In the recycling of all the subjects contemporary art says, by a historical understanding; to cope with complexity directly with a refusal to fall back on the facileness of duality. We have to peel away layers of the cultural onion, enter into noise, and face the enemy. (n.p.)

Along the way, I developed a view of art for research, creating new integrated perspectives. According to Sullivan (2008), it is thus possible to experience that

Artist-researchers create critical insights that are germane and current, and the viewer creates meaning within the critical contexts that inform the artistic encounter. This view asserts that the task of artistic or scientific inquiry is to create and apply new knowledge; however, these goals can be achieved by following different but complementary pathways. (p. 249)

These personal experiences have become the expression of the complex unit postulated by Morin that complementary modes of being can be filled with life. In such moments, what Eisner (2008) formulated can be successful, namely to be "multilingual in this research means being able to use different media (e.g. language and visual arts) effectively to represent what one has learned" (p. 9).

Then it seems possible to follow Morin (2008) subsequently on an individual level

What we want to draw out, beyond reductionism and holism, is the idea of the complex unity, that links analytical-reductionist thinking and global thinking, in a dia-logic... This means that if reduction – the search for elementary, simple units, the decomposition of a system into its elements, the origination of the complex to the simple – will remain an essential characteristic of the scientific mind, it is no longer the only, nor, particularly, the last, word. (p. 33)

On the collective level, what Ebert (2013) regards as the essence of Gebser's future design thus looks possible.

As Gebser's theory of this a-perspectival epoch implies, the artist paints his forms like the Palaeolithic artist onto the walls of the hyper-dimensional world cavern, where they float, and glow, all by themselves, as the structuring forms located in the deep recesses of the causal zones of Being that make everything in the physical world possible. This is for us to explore. (p. 23)

This development would at least have to relate to future management training and established management. Thus art can be reunited as a partner to society and economy and the light which was separated in the Enlightenment can be reunited with its shadow in line with the aforementioned Moebius strip. According to authors like Covey (2006) or DePree (2004), leadership would thus become management art, which differs from pure management skills as they are frequently depicted today. Postformal reasoning would thus be both conscious of and enriched by the shadows. In this sense Galuska (2010) states, that

Economic life reflects in its light and shadow sides the current structures of human consciousness. It favours self-centred, unconnected and short-term orientated action. We are trapped in our own points of view and increasingly less able to adapt. (pp. 121-122)

He summarizes, that a new form of socio-economic activity will therefore perhaps be an art of economies. Because under changing paradigms of our social and economic system, more complex structures and more complex corporate philosophies must be taken into account. This will not only require a kind of artistry in the leadership process, but result in differently weighted and thus more individual organisations and subgroups within society.

The final word is left to two artists. Picasso comments on the individual side of artistic creation when he explains that he never made a painting as a work of art and that all his work is research. Beuys expresses the social-collective dimension of the encounter with art as part of his expanded concept of art. He defines such a “social sculpture” by explaining that everyone is an artist who shapes the emergent future by his own development and the creative expression of it.

References

- Antonovsky, A. (1987). *Unraveling the mystery of health - how people manage stress and stay well*. San Francisco: Jossey-Bass Publishers.
- Barr, N., Pennycook, G., Stolz, J. A., Fugelsang, J.A. (2015). The brain in your pocket: Evidence that smartphones are used to supplant thinking. *Computers in Human Behavior*, 48, 473-480.

- Baron, C. & Cayer, M. (2011). Fostering post-conventional consciousness in leaders: why and how? *Journal of Management Development*, 30(4), 344-365.
- Basseches, M. (1980). Dialectical schemata: A framework for the empirical study of the development of dialectical thinking. *Human Development*, 23, 400-421.
- Batinic, B. & Appel, M. (2008). *Medienpsychologie*. Berlin: Springer.
- Beck, D. E. & Cowan, C. (2005). *Spiral Dynamics: Mastering values, leadership and change*. Hoboken: Wiley.
- Bohm, D. (1996). *On dialogue*. London: Routledge.
- Breton, A. (1924). *The Surrealist manifesto*. Paris: Éditions du Sagittaire.
- Brough, J. (2012). Something that is nothing but can be anything: The image and our consciousness of it. Dan Zahavi (Ed.), *The Oxford handbook of contemporary phenomenology* (pp. 545-563). Oxford: Oxford University Press.
- Carus, C. G. (1846). *Psyche. Zur Entwicklungsgeschichte der Seele*. Leipzig: Kröner.
- Caspers, S.; Heim, S.; Lucas, M.; Stephan, E.; Fischer, L.; Amunts, K. & Zilles, K. (2011). Moral concepts set decision strategies to abstract values. *PLoSOne*, 6(4), online: <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0018451>
- Caspers, S.; Heim, S.; Lucas, M. G.; Stephan, E.; Fischer, L.; Amunts, K. & Zilles, K. (2012). Dissociated neural processing for decisions in managers and non-managers. *PLoSOne*, 7(8), e43537.
- Cole, A. L., Knowles, J. G. (2008). Arts-informed research. J. Gary Knowles & Ardra L. Cole (Eds.), *Handbook of the arts in qualitative research* (pp. 55-70). Thousand Oaks, CA: Sage.
- Commons, M. L. (2008). Introduction to the Model of Hierarchical Complexity and its relationship to postformal action. *World Futures*, 64, 305-320.
- Covey, S. (2006). *The 8th habit: From effectiveness to greatness*. Philadelphia: Running Press.
- Cowen, T. (2011). An economic and rational choice approach to the autism spectrum and human neurodiversity". *GMU Working Paper in Economics 11, 58*. SSRN 1975809
- Csikszentmihalyi, M. (2008). *Flow: The psychology of optimal experience*. New York: Harper Perennial Modern Classics.
- Deeg, J. (2009). Organizational discontinuity: Integrating evolutionary and revolutionary change theories. *Management Revue*, 20(2), 190-208.
- De Barros, M. (2011). Noisy viral threat: Joseph Nechvatal. *Digitalarti*, 4, online via: <http://www.eyewithwings.net/nechvatal/digitalarti/Digitalarti%20Mag%20Review.html>
- Depraz, N., Varela, F., Vermersch, P. (2003). *On becoming aware: A pragmatics of experiencing*. Philadelphia: John Benjamins.
- DePree, M. (2004). *Leadership is an art*. London: Crown Business.
- Ebert, J. D. (2013). *Art after metaphysics*. CreateSpace Independent Publishing Platform.
- Eisenberg, R. & Miron-Spektor, E. (2014). Unpacking the effect of paradoxical frames on creativity: The importance of recognizing and embracing contradictions. *Working paper*. Technion – Israel Institute of Technology, Haifa.
- Eisner, E. (2008). Art and knowledge. J. Gary Knowles & Ardra L. Cole (Eds.), *Handbook of the arts in qualitative research* (pp. 3-12). Thousand Oaks, CA: Sage.
- Eliasson, O. (2008). *The conversation series*. Köln: Verlag Walter König.
- Evans, J. (2008). Dual-processing accounts of reasoning, judgement, and social cognition. *Annual Review of Psychology*, 59, 255-278
- Evans, J., Stanovich, K. E. (2013). Dual-process theories of higher cognition: Advancing the debate. *Psychological Science*, 8(3), 223-241.

- Frankl, V. (2006). *Man's search for meaning. An introduction to Logotherapy*. Boston: Beacon Press.
- Freiesleben, U. (2010). Der Unternehmer als Künstler. Joachim Galuska (Ed.), *Die Kunst des Wirtschaftens*, Bielefeld: Kamphausen.
- Friedman, M. (1970). The social responsibility of business is to increase its profits. *The New York Times Magazine*, September 13.
- Galuska, J. (2010). *Die Kunst des Wirtschaftens*. Bielefeld: Kamphausen.
- Gigerenzer, G. (2007). *Bauchentscheidungen. Die Intelligenz des Unbewussten und die Macht der Intuition*. Munich: Bertelsmann.
- Gordon, R. J. (2014). The demise of U.S. economic growth: Restatement, rebuttal, and reflections. *The National Bureau of Economic Research, NBER Working Paper No. 19895*.
- Hegel, G. W. F. (1979). *Werke in zwanzig Bänden. Band 18 Vorlesungen über die Geschichte der Philosophie*, Frankfurt am Main: Suhrkamp Verlag.
- Heitmeyer, W. (2011). *Deutsche Zustände*. Frankfurt am Main: Suhrkamp Verlag.
- Hickson, D. J.; Agersnap, F.; Ferraresi, F.; Hofstede, G.; Kieser, A.; Lammers, C. & Thoenig, J.-C. (1980). Editorial. *Organization Studies*, 1(1), 1-2.
- Higgs, G. E. (2008). Psychology: Knowing the self through arts. J. Gary Knowles & Ardra L. Cole (Eds.), *Handbook of the arts in qualitative research* (pp. 545-556). Thousand Oaks, CA: Sage.
- Hinz, S. (1968). *Caspar David Friedrich in Briefen und Bekenntnissen*. Berlin: Henschelverlag Kunst und Gesellschaft.
- Hirsch, A. (2011). *Hundertwasser – The art of the green path*. Munich: Prestel.
- Horkheimer, M. & Adorno, T. W. (1944). *Dialektik der Aufklärung*. Frankfurt am Main: Fischer.
- Huebner, J. (2005). A possible declining trend for worldwide innovation. *Technological Forecasting & Social Change*, 72, 980–986.
- Hugo, V. (1827). *Préface de Cromwell*. Paris: Larousse.
- Husslein-Arco, A. (2009). *Keine Zeit busy – Erschöpftes Selbst/Entgrenztes Können*. Köln: Verlag Walter König.
- Jensen, K., Call, J., & Tomasello, M. (2013). Chimpanzee responders still behave like rational maximizers. *Proceedings of the National Academy of Sciences*, 110, E1837-E1837. eScholarID:247621
- Johnson, H. (1982). *American artists on art from 1940 to 1980*. New York: Harper and Row.
- Kahneman, D. (2011). *Thinking, fast and slow*. London: Penguin.
- Kallio, E. (2011). Integrative thinking is the key: An evaluation of current research into the development of adult thinking. *Theory & Psychology*, 21, 785-801.
- Kant, I. (1781). *Critique of pure reason*. Cambridge: Cambridge University Press.
- Kegan, R. (1994). *In over our heads. The mental demands of modern life*. Cambridge: Harvard University Press.
- Kozhevnikov, M., Evans, C. & Kosslyn, S. M. (2014). Cognitive style as environmentally sensitive individual differences in cognition. *Psychological Science in the Public Interest*, 15 (1), 3-33.
- Kuspit, D. (2013). The matrix of sensations. Katja Knicker & Kurt Wettengl (Eds.), *Hans Breder: Kollisionsfelder / Collision Fields*, Books on Demand.
- Langen Foundation, Boros Foundation (2015). *Olafur Eliasson. Works from the Boros Collection 1994-2015*. Berlin: Distanz.

- Latouche, S. (2004). *Survivre au développement. De la décolonisation de l'imaginaire économique à la construction d'une société alternative*, Paris: Editions Mille et une nuits.
- Lawrence, W. G. (2005). *Introduction to social dreaming – transforming thinking*. London: Karnac Books.
- Lucas, M. G. (2013). Foundations of a neo-integral transformational leadership and organizational development. *Integral Leadership Review*, 1.
- Lucas, M. G. (2012). Grundlagen einer neo-integralen transformationalen Führung und Organisationsentwicklung. *Wirtschaftspsychologie*, 3, 4-20.
- Lucas, M. G. & Caspers, S. (2014). Leadership and adult development: Towards a unified neuro-psycho-economic approach. *Adult Development Bulletin*, 12, 83-90.
- McGregor, S. L. T. (2015). Integral dispositions and transdisciplinary knowledge creation. *Integral Leadership Review*, 15, 1, <http://integrallleadershipreview.com/12548-115-integral-dispositions-transdisciplinary-knowledge-creation/>
- Mendoncaa, S., Pina e Cunhab, M., Kaivo-ojac, J., Ruffd, F. (2004). Wild cards, weak signals and organisational improvisation. *Futures*, 36(2), 201–218.
- Merleau-Ponty, M. (1969). *The visible and the invisible*. Noyes St. Evanston: Northwestern University Press.
- Metzinger, (2009). *The ego tunnel – The science of the mind and the myth of the self*. New York: Basic Books.
- Michel, B. (2006). *Bild und Habitus: Sinnbildungsprozesse bei der Rezeption von Fotografien*. Berlin: VS Verlag für Sozialwissenschaften.
- Mikunda, C. (2011). Hundertwasser's aesthetics of respite. Andreas Hirsch (Ed.), *Hundertwasser – the art of the green path* (p. 187). Munich: Prestel.
- Morin, E. (2008). *On complexity*, New York: Hampton Press.
- McNiff, S. (2008). Art-based research. J. Gary Knowles & Ardra L. Cole (eds.), *Handbook of the arts in qualitative research* (pp. 29-40). Thousand Oaks, CA: Sage.
- Muther, R., Dent, J. M. & Dutton, E. P. (2010). *The history of modern painting*. London: Bibliolife.
- Niglas, K. (2010). The multidimensional model of research methodology: An integrated set of continua. Abbas Tashakkori & Charles Teddlie (Eds.), *Sage handbook of mixed methods in social & behavioral research* (pp. 215-236). Thousand Oakes: Sage.
- Nolt, J. (2010). Free logic. E. N. Zalta (Ed.), *Stanford encyclopedia of philosophy*, Stanford: University Press.
- Oliver, M. B., & Bartsch, A. (2011). Appreciation of entertainment: The importance of meaningfulness via virtue and wisdom. *Journal of Media Psychology*, 23(1), 29–33, DOI: 10.1027/1864-1105/a000029
- Oliver, M. B. & Raney, A. A. (2011). Entertainment as pleasurable and meaningful: Identifying hedonic and eudaimonic motivations for entertainment consumption. *Journal of Communication*, 61(5), 984-1004, DOI: 10.1111/j.1460-2466.2011.01585.x
- Paletz, S. B. F.; Kim, K. H.; Schunn, C. D.; Tollinger, I. & Vera, A. (2013). Reuse and recycle: The development of adaptive expertise, routine expertise, and novelty in a large research team. *Applied Cognitive Psychology*, DOI: 10.1002/acp.2928
- Pareto, V. (1906). Manuale d'economia politica. *Manuali universitari*.
- Peng, K. & Nisbett, R. E. (1999). Culture, dialectics, and reasoning about contradiction. *American Psychologist*, 54, 741-754.

- Peters, T. & Ghadiri, A. (2011). *Neuroleadership - Grundlagen, Konzepte, Beispiele: Erkenntnisse der Neurowissenschaften für die Mitarbeiterführung*. Heidelberg: Gabler Verlag.
- Petit, J. W. (2002). *Mipham's beacon of certainty*. Somerville, MA: Wisdom Publications.
- Piaget, J. (1954). *The construction of reality in the child*. London: Routledge.
- Praz, M. (1981). *Liebe, Tod und Teufel. Die schwarze Romantik*. München: DTV.
- Reinecke, L.; Tamborini, R.; Grizzard, M.; Lewis, R.; Eden, A. & Bowman, D. (2012). Characterizing mood management as need satisfaction: The effects of intrinsic needs on selective exposure and mood repair. *Journal of Communication*, 62(3), 437-453, DOI: 10.1111/j.1460-2466.2012.01649.x
- Rizzolatti, G. & Sinigaglia, C. (2007). *Mirrors in the brain: How our minds share actions and emotions*. Oxford: Oxford University Press.
- Rooke, D. & Torbert, W. R. (1998). Organizational transformation as a function of CEO's developmental stage. *Organizational Development Journal*, 16(1), 11-28.
- Rooke, D. & Torbert, W. R. (2005). Seven transformations of leadership – leaders are made, not born, and how they develop is critical for organizational change. *Harvard Business Review*, 83(4), 67-76.
- Rosch, E. (2008). Beginner's mind: Paths to the wisdom that is not learned. M. Ferrari & G. Potworowski (Eds.), *Teaching for wisdom: Cross-cultural perspectives on fostering wisdom* (pp. 135-162). Amsterdam: Springer.
- Rost, N. (2008). Der Homo Oeconomicus – Eine Fiktion der Standardökonomie. *Zeitschrift für Sozialökonomie*, 158, 50-58.
- Salber, W. (2003). *Fünfundsiebzig Notizen zur Metapsychologie*. Bouvier: Bonn.
- Scharmer, C. O. (2009). *Theory U: Leading from the future as it emerges*. Cambridge: SoL, the Society for Organizational Learning.
- Schwan, S. & Hesse, F. W. (2004). Kognitionspsychologische Grundlagen. In R. Mangold, P. Vorderer & G. Bente (Eds.), *Lehrbuch der Medienpsychologie* (pp. 73-99). Göttingen: Hogrefe.
- Senge, P. M.; Jaworski, J.; Scharmer, C. O. & Flowers, B. S. (2005). *Presence: Exploring profound change in people, organizations and society*. London: Crown Business.
- Slavin-Spenny, O.; Cohen, J.; Oberleitner, L. & Lumley, M. (2010). The effects of different methods of emotional disclosure: Differentiating post-traumatic growth from stress symptoms. *Journal of Clinical Psychology*, 67, 993-1007.
- Starbatty, J. (2009). Das Menschenbild in den Wirtschaftswissenschaften. *Tübinger Diskussionsbeiträge der Wirtschaftswissenschaftlichen Fakultät*.
- Sternberg, R. J. (2011). *The nature of creativity: Contemporary psychological perspectives*. Cambridge: Cambridge University Press.
- Sullivan, G. (2008). Painting as research. J. Gary Knowles & Ardra L. Cole (Eds.), *Handbook of the arts in qualitative research* (pp. 239-250). Thousand Oaks, CA: Sage.
- Tedeschi, R. G. & Calhoun, L. G. (2004). Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry*, 15, 1-18.
- Trepte, S. & Reinecke, L. (2013). *Medienpsychologie. Grundriss der Psychologie*. Stuttgart: Kohlhammer.
- Vessel, E. A.; Starr, G. G. & Rubin, N. (2013). Art reaches within: Aesthetic experience, the self and the default mode network DMN. *Frontiers in Neuroscience*, 7, doi.org/10.3389/fnins.2013.00258

-
- Vincent, N., Ward, L. & Denson, L. (2015). Promoting post-conventional consciousness in leaders: Australian community leadership programs. *The Leadership Quarterly*, 26(2), 238–253.
- Vorderer, P. (2011). What's next? Remarks on the current vitalization of entertainment theory. *Journal of Media Psychology*, 23(1), 60-63.
- Vorderer, P. & Trepte, S. (2000). Medienpsychologie. J. Straub et al. (Hrsg.), *Psychologie in der Praxis. Anwendungs- und Berufsfelder einer modernen Wissenschaft*. München: DTV.