Timothy Collins suggests "that the aesthetics of ecology are revealed through the perception and understanding of the physical characteristics of diversity" (Collins in eds. Strelow, Prigann and David 2004, p. 170), with effective change emerging from diversity rather than from "primary authorship or the exclusive manifestos of modernist practice" as was attempted at in artistic avant-gardes. Collins further points at the ecological value of biological and social /cultural diversity as "a complex interrelationship of diversities" (ibid., p. 172), i.e. its value for resilience, which Collins metaphorically understands as an issue of health: "a lack of health can be described in terms of emergent dominant systems that mitigate or constrain diversity".

Strelow mentions "interdisciplinarity and transdisciplinarity" as typical features of art projects based on ecological aesthetics.[11] "Connecting things separate spatially and intellectually, in other words transdisciplinary thinking and acting, are essential for conceiving and realizing these projects" (Strelow in eds. Strelow, Prigann and David 2004, pp. 12-13). The project interdisciplinarity also involves bottom-up political participation by communities, or at least their approval and legitimation: In this sense, Strelow also argues that ecological artists, who are "initiating, promoting and presenting these processes", are thus becoming "catalysts for social transformation processes. They mediate between various pressure groups and disciplines" (ibid., p. 13). This also points at another feature of ecological aesthetics in such projects: It is "aimed at practicality" and founds a concretely transformative, i.e. transform-active artistic practice.

A further feature stemming from the 'expanded concept of art' initiated by Joseph Beuys (and in opposition to historical avant-gardes) is, according to Jacques Leenhardt, that by moving away from museum art, such art projects "involve [themselves] once more in all the dangers emanating from uncertain spaces like the street, from nature, from opaque human situations [and thereby] rediscover less theoretical, more directly human aspects of existence in which the complexity of ideas and gestures finally achieves its full identity, its full density" (Leenhardt in eds. Strelow, Prigann and David 2004, p. 112). As Morin indeed pointed out, the understanding of complexity, in nature and in human society, requires such an openness to uncertainties and to the agitations of disorders outside the organized fields of art

ing macro-concepts, and does not clearly envision a dialogical alternative (as e.g. Morin would do: Cf. Morin 1980, pp. 327-328) and thus remains captive of the binary tension he describes.

11 However, even though she uses the word repeatedly, Strelow only succinctly defines transdisciplinarity as "a research approach that defines problems independently of any discipline" and as "a further development of interdisciplinarity" (Strelow in eds. Strelow, Prigann and David 2004, p. 15) - for a more thorough approach to transdisciplinarity, see my earlier developments in chapter 3 and my forthcoming discussion below in this chapter.

worlds. Leenhardt is explicitly pointing at the "ecological idea" for its introduction of "complexity and the interaction of causalities [into] the circle of artistic disciplines, whose unduly confined framework it opens up": In other words, he argues that the ecological idea, as in 'ecological aesthetics', offers to the art worlds the opportunity to leave the orbit of the 'culture of unsustainability' (as discussed in chapter 1).

But this opportunity does not come without challenges: Leenhardt, in his discussion of the insights of the "ecological idea" to art, warns about the consequences of such insights for artistic practices and the kind of aesthetic experiences that are to be expected: These can no longer be limited to merely local objects and relations, but must relate them to wider contexts: "the new interest in complex causalities leads to increased attention to global connections rather than spatially limited situations that cannot carry the real driving forces of the phenomena within them. [...] Objects of ecological aesthetics are not permitted small frames of reference" (ibid.). This requirement further qualifies ecological aesthetics as a "sensibility to the pattern which connects".

Towards aesthetics of sustainability

The notion of a sensibility to connectedness was central in Gregory Bateson's understanding of aesthetics. Based on Bateson's aesthetics, which I will now introduce and discuss, I will further elaborate an understanding of "aesthetics of sustainability". This very expression has already been used by Hildegard Kurt in the past decade, but in a different way, which I will discuss in chapter 6 (I will also discuss in chapter 6, the expression "sustainable art" as introduced by Maja and Reuben Fowkes). But for now, it suffices to say that my use of the expression does not borrow from their precedents.

SECTION 2: FROM BATESON'S SENSIBILITY TO THE PATTERN WHICH CONNECTS, TO A SENSIBILITY TO PATTERNS THAT CONNECT

The anthropologist Gregory Bateson, one of the founders of cybernetics and systems sciences in the decades following the second world war, understood early on that "there is an increasing necessity for an awareness of being part of relational contexts [...]: persons, groups, populations, genders, species" (Foreword by Sergio Manghi in Bateson 1979, p. xii). Bateson perceived that necessity as the need for a major cultural shift. "His interest was in addressing the very way we think about issues. [...] Bateson was after the very principles of organization that informed the thinking of our culture as a whole. [...] Bateson was engaged in what, again following Edgar Morin, we might now call transdisciplinary work, whose nature it is not merely to cross

disciplinary boundaries, but to rearrange our mental landscape" (Alfonso Montuori, Series Editor's Introduction, in Bateson 1979, p. xvii-xviii).

Bateson's approach *connects*, in contrast with Luhmann's system theory, which *dis-connects* (and thereby allows to think unsustainability in systemic terms - cf. chapter 1, section 1). Bateson's work highlights the complex living systems as that which connects together the whole ecology of the living. In his late work *Mind and Nature*, he asks himself: "What is the pattern which connects all the living creatures?" (Bateson 1979, p. 7).[12] His thinking contributed to this reunification of nature and culture already mentioned above, away from the romantic/modern dichotomy. The elaborate properties of humanity do not stand out against a primitive natural background: On the contrary, the most elaborate human qualities are expressions of the functioning of living systems.

> "It was, rather, the more complex, the aesthetic, the intricate and the elegant aspects of people that reflected nature. It was not my greed, my purposiveness, my so-called 'animal', so-called 'instincts' and so forth that I was recognizing on the other side of that mirror, over there in 'nature'. Rather, I was seeing there the roots of human symmetry, beauty and ugliness, aesthetics, the bodily grace, and even his habit of making beautiful objects are just as 'animal' as his cruelty. After all, the very word 'animal' means 'endowed with mind or spirit (*animus)*'" (ibid., p. 5).

Cybernetic insights

Bateson's cybernetics helps him to think Time through.[13] This points at an important property of the pattern that connects: the patterns are not to be thought of "as fixed affairs [but as] a dance of interacting parts and only secondarily pegged down by various sorts of physical limits and by those limits which organisms characteristically impose" (ibid., p. 12) . Furthermore, time for living systems implies a sort of narrativity. All "minds" in Bateson's sense, i.e. from the tree to the Senate of the United States and the ecosystem of the Amazon forest, think in terms of stories.[14] Stories are that which puts A and B together into a constructed 'context'. Context is to be understood as "pattern through time". Relevance comes in contexts; stories shape relevance. Noel Charlton also pointed at this: "It is too easy for us to understand a concept like pattern as something fixed, like the pattern printed on a piece

12 Exact page numbers refer to the 2002 edition. In *Mind and Nature*, Bateson explicitly restricts his focus to the world of the living, taken altogether and set apart from the world of the nonliving. His analysis does not touch upon physics, unlike Laszlo's or Morin's (as seen in chapters 2 and 3).

13 More generally, systems thinking approaches take time into account at a serious theoretical level (e.g. with the notion of irreversibility), unlike mechanistic theories and their offspring such as e.g. neoclassical economics.

14 Cf. Bateson 1979, pp.12-13.

of cloth. For Bateson, pattern is always dynamic – formed by all the shifting relationships that make-up the ever-changing dance of social, biological and psychological contexts" (Charlton 2008, p. 77).

Also, context is necessary for fixing, providing, assigning meaning. Bateson asserts "that all communication necessitates context, that without context, there is no meaning and that contexts confer meaning because there is a classification of contexts" (Bateson 1979, p. 16).

Furthermore, another basic insight from Batesonian cybernetics is that we cannot properly understand the world around us, by focusing on the things in themselves (das Ding an sich), but that we should instead investigate all the forms of inter-relations between things. Bateson explains that you cannot "define something by what it supposedly *is* in itself" and that the only sensible way to define a thing is "by its relation to other things" (ibid., p. 15). Relationship rather than things should be the starting point of any definition.

The aesthetic according to Bateson

To Bateson, the aesthetic is that which is "responsive to *the pattern which connects*" (ibid., p. 8). He defines the "aesthetic preference" of a mind, as being "able to recognize characteristics similar to their own in other systems they might encounter" (ibid., p. 118). A typically aesthetic question, would be "*How are you related to this creature? What pattern connects you to it?*"

Bateson gives the illustration of a group of art students whom he once asked to explain why a dead crab being displayed, used to be a living thing (the students were asked to find answers by just looking at the dead crab, and to do as if they had never seen a crab before). The students moved from the observation that the crab showed some symmetry between its parts (left/right), to the observation that the symmetry was not absolute (e.g. one claw bigger than the other), to the conclusion that there existed a similar relation between parts, in the case of one crab ("both claws are made of the same parts") as well as in the crab/lobster comparison and (crab-lobster)/human comparison. They "discarded an asymmetry in size in favor of a deeper symmetry in formal relations" (ibid., p. 8).

Bateson calls these patterns within the crab, *first order connections*. The pattern connections between crab and lobster, he calls *second-order connections*, or what biologists call "phylogenetic homology". Finally, he points at the pattern which connects the patterns connecting, on the one hand, the crab and lobster, and on the other hand, the human being and horse. This comparison of comparisons is labeled as *third order connections*. These three levels of connections, and of perception-conceptualization of connections, are pointing at three different "logical types" (to use Bateson's terminology, after Bertrand Russell; or different "levels of organization" to rephrase into Nicolescu's terms), i.e. different levels of functioning of systems within systems.

This movement illustrated by the art students' progression in the example, of pattern recognitions across different levels, is what Bateson proposes as the way to think about "the pattern which connects": "The pattern which connects is a metapattern. It is a pattern of pattern" (ibid., p. 10).

In this sense, a strong aesthetic sense is a heightened responsiveness to the meta-pattern uniting the living world, rather than an arrested perception, stumbling upon the first-order or second-order differences. To prevent a misreading of Bateson here: The differences are indeed what allows the mind to emerge, so that it can perceive the differences, so of course Bateson's argument here is not against the perception of difference, but against a perception of superficial difference that satisfies itself with the fact of superficial difference and hinders the pursuit of the mind's aesthetic probing of the world around itself, i.e. a probing for connections across differences.

Bateson viewed this aesthetic sensibility as rooted in the biological, and not a uniquely human quality. In a presentation to a psychiatric conference in 1958, Bateson suggested "that we are genetically conditioned to like things that share our own formative influences and that we recognize, mainly at unconscious levels of mind, those aspects of the world that are convivial to our systemic survival" (Charlton 2008, p. 98). Besides, Bateson asserted (in a 1967 conference paper on primitive art) that there is, at the biological level already, a redundancy, a shared (meta)pattern in all of life that allows information about a part to also contain some information about the whole and about other parts, allowing a meaningful relational context to emerge.[15] "Responding to beauty (or ugliness) is recognizing a systemically related being that is an extension, an enlargement, of our own systemic sense of self. *This is the link between systems theory and aesthetics*" argues Charlton (ibid., p. 141).

The aesthetic sensibility, which potential lies beyond purposive consciousness, is also not reserved, among humans, to the artists only, although it is most often repressed in non-artistic social systems. For example, Donald Schön pointed out, in *The Reflective Practitioner* (1983), how professionals (and more specifically in his analysis: engineers, architects, managers, psychotherapists, and town planners) do not only apply rational decision-making as they are supposed to do (and claim to do), but use their whole selves, including their intuitions, although they often do not acknowledge it.

For Bateson, the aesthetics of the pattern which connects is that which can provide a sense of aesthetic unity (and an ecological ethics in the same process) that modern societies are critically lacking.[16] This aesthetic lack is

15 This is something that Edgar Morin will also refer to, as a "holographic principle".

16 Bateson made the link between aesthetics and ecological ethics most explicit in his "last lecture" held in October 1979 at the Institute of Contemporary Arts in London: "matters of beauty are really highly formal, very real, and crucial to the entire political and ethical system in which we live" (quoted in Charlton 2008, p. 129).

an epistemological lack: "our loss of the sense of aesthetic unity was, quite simply, an epistemological mistake" (Bateson 1979, p. 17). As Charlton notes, the linking of the urgency of the ecological crisis and of aesthetics' possibility of enlightenment, became central to Bateson in the last ten years of his life.[17]

Bateson's understanding of artistic activity as offering an expanded experience

As Noel Charlton observes, from 1954 onwards (with the metalogue "why a swan?"), "Bateson had realized that the *metaphorical functions* of art processes are the central and most important dynamic aspect of the relationship between artworks and those who interact with them" (Charlton 2008, p. 96). In a conference paper on primitive art in 1967, Bateson pointed out that it is "of prime importance to have a conceptual system that will force us to see the "message" [i.e. the artistic creation] as *both* itself internally patterned *and* itself a part of a larger patterned universe – the culture or some part of it" (Bateson quoted in Charlton 2008, p. 102). The metaphorical linking between the internal pattern and the external pattern occurs outside the reach of purposive consciousness, Bateson argued, noting the "complex layering of consciousness and unconsciousness" (ibid., p. 105). The aesthetic reflects a mental capacity which exceeds consciousness, and poetry is not distorted prose, but rather prose is poetry subjected to logic.[18] Art can engage a wider-than-conscious communication. Quoting choreographer Isadora Duncan's claim that "If I could tell you what it meant, there would be no point in dancing it", Bateson proposed to translate her saying as meaning "This is a particular sort of partly unconscious message. Let us engage in this particular sort of partly unconscious communication," or "This is a message about the interface between conscious and unconscious" (ibid., p. 109). In a lecture held in 1970, Bateson re-asserted that art "is concerned with the relations *between* the levels of mental process [...] artistic skill is the combining of many levels of mind [...] to make a statement of their combination" (ibid., p. 121).

Across his works, as Charlton analyzed closely, Bateson increasingly gave attention to this metaphorical process as a corrective to the limits of "purposive consciousness" (which I discussed in chapter 1, section 1). In a lecture also held in 1967, Bateson stated: "I don't know the remedy but there is this: that consciousness can be a little enlarged through the arts, po-

17 Cf. Charlton 2008, p. 101.

18 Cf. ibid., p. 106 (citing Bateson).

etry, music and the like" (Bateson quoted in Charlton 2008, p. 100). Such a remedy is required especially

> "because our interactions with our surroundings have (until recent times) been constant, they have been consigned to primary process operations [a Freudian term for the subconscious] and so we no longer have the *conscious* capacity to deal with environment wisely. [...] However, artistic engagement [...] provides a root into primary process whereby the buried wisdom, the otherwise inaccessible responsiveness, can be accessed and utilized" (Charlton 2008, p. 107).

Without this wisdom, rational planning guided by purposive consciousness short-circuits the mental process and mistakes its short-circuits for straight lines of causality. Bateson argued vehemently against this situation in his 1967 conference paper on primitive art:

> "Purposive rationality unaided by such phenomena as art, religion, dream, and the like, is necessarily pathogenic and destructive of life [...] its virulence springs specifically from the circumstance that life depends on interlocking *circuits* of contingency, while consciousness can see only such shorts arcs of such circuits as human purpose may direct. Unaided consciousness must always tend towards hate; not only because it is good common sense to exterminate the other fellow, but for the more profound reason that, seeing only arcs of circuits, the individual is continually surprised and necessarily angered when his hardheaded policies return to plague the inventor" (Bateson quoted in Charlton 2008, pp. 112-113).

Bateson thus sees art as opening up the human mind to more than the narrow "purposive consciousness". A long quote from Bateson's *Steps to an ecology of mind* (which includes a reprint of the 1967 lecture) sheds light on his understanding of art as a "royal road" to an expanded, aesthetic reflexivity:

> "It is, however, possible that the remedy for ills of conscious purpose lies with the individual. There is what Freud called the royal road to the unconscious. He was referring to dreams, but I think we should lump together dreams and the creation of art, or the perception of art, and poetry and such things. I would include with these the best of religion. These are activities in which the whole individual is involved. The artist may have a conscious purpose to sell his picture, even perhaps conscious purpose to make it. But in the making he must necessarily relax that arrogance in favour of a creative experience in which his conscious mind plays only a small part. We might say that in creative art man must experience himself — his total self — as a cybernetic model. [...] What is required is not simply a relaxation of consciousness to let the unconscious material gush out. To do this is merely to exchange one partial view of the self for the other partial view. I suspect that what is needed is the synthesis of the two views and this is more difficult" (Bateson 1973, p. 414).

Aesthetics in general or aesthetics of sustainability?

I will depart from Bateson insofar as he defines aesthetics, in general terms, as that which is "responsive to *the pattern which connects*".

Aesthetics may not always be "connective" to the fullest extent described by Bateson. Indeed, an aesthetic experience can exist, which does not reach the level of "third-order connections" and the generality of the unity of all life forms described by Bateson, and which satisfies itself with a unity of meanings and values (in Dewey's sense) with a narrower scope/at a more limited range. In a Luhmannian sense, the existence of more exclusively autopoïetic aesthetic experiences should be acknowledged. The aesthetics described by Bateson should then be qualified as characteristic of aesthetics of sustainability, rather than of aesthetics in general.

In refusing to cover aesthetics in general terms, I am not advancing an unprecedented argument. Indeed Timothy Collins also discriminates ecological aesthetics as "depart[ing] from the autonomous object of classical aesthetics, defined as unity, regularity, simplicity, proportion, balance, measure and definiteness" (Collins in eds. Strelow, Prigann and David 2004, p. 172). By contrast to classical, object and essence-centered aesthetics (cf. analytical aesthetics)[19], aesthetics of sustainability is to be understood as a subset of aesthetics as understood by Dewey, i.e. a form of relation and process-centered aesthetics, which bases itself on a sensibility to patterns that connect at multiple levels (i.e. first, second and third-order connections as described by Bateson).

Pattern or patterns?

Another departure from Bateson consists in speaking of patterns that connect, rather than of a pattern that connects, in order to avoid a holistic bias simplifying and impoverishing the theoretical understanding of aesthetics of sustainability (which may not be clearly present in Bateson's own work but as a risk of misunderstanding among his readers).[20] As already seen with Morin in chapter 3, the issue is to express unity in diversity, and not unity against diversity, and to be sensitive to complexity. As the next section will show, this requirement will necessitate a further characterization of aesthetics of sustainability as sensibility to complexity, based on Bateson's pattern that connects but also beyond its holistic caveat.

Another option would be to talk of patterning that connects, partly in the way Oleg Koefoed proposes to talk of culturality as a way out of the alterna-

19 For an introduction to the difference between analytical aesthetics and Dewey's aesthetics, cf. Shusterman 1992, pp. 3-33.

20 For example, Charlton (2008) repeatedly flirts with the risk of holism, as e.g. p. 141 where he insists on "wholeness" and "oneness".

tive culture/cultures. In this sense, one could then speak of aesthetics of sustainability as a sensibility to patterning that connects. The verbal form 'patterning' stresses the time-dimension, i.e. the process-value of the "dance of interacting parts", as well as the relational value of pattern(s) that connect, which should not be confused with the assumed thing-ishness of purported things-in-themselves and of pure ideas. However, I will prefer to use the expression "patterns that connect", in order to avoid excessive stylistic esotericism.

Topics, processes and values that connect

What does this characterization of aesthetics of sustainability as based on a sensibility to patterns that connect, signify in practice? How can cultural practices, e.g. the arts, express and foster such a sensibility? I argue that they can do so at three interconnected levels:[21]

- The level of a sensibility to topics that connect, i.e. issues characterized by the inter-relatedness of cultural, social, economic, political and ecological processes, of local and global realities and different time frames (from the short-term to the very-long term), and by intercultural linkages.
- The level of a sensibility to processes that connect, i.e. search, research, learning, playing and working processes, insofar as they:[22]
  - involve all-out reflexivity about 'ourselves' in a wide sense (from individual routines to social institutions and polities);
  - develop reflexivity skills of different types, appealing to a diversity of human qualities, beyond the limited types of rationality tapped by most scientific discourses and beyond the limitation of imagination embedded in established rules and routines;[23]
  - develop an ability to work in inter- and transdisciplinary teams on projects (in the arts especially, this implies a shift towards relatively less autonomous, less individualistic, more collaborative and more interactive working processes);
  - develop intercultural and interconventional interactions, tapping into a human capacity for enhanced empathy, beyond sociocentrism and ethnocentrism.[24]
- The level of a sensibility to values that connect, inquiring into the meanings and implications of justices, in a pluralistic way, opening up multiple layers of interpretations, neither assuming universal values nor retreating into a postmodern hyper-atomization of values.

21 Cf. Kagan 2008b, pp 17-19; Kagan 2010.

22 The following list is taken from Kagan 2010, pp. 1098-1100.

23 Cf. Dieleman 2008.

24 On intercultural and interconventional interaction, cf. Kagan 2004.

The sensibility to the topics that connect expresses itself fully in transdisciplinarity and in Morin's dia-logic, which were discussed in chapter 3 and which imply the construction of an integrative, patterning knowledge. This sensibility requires indeed a "science and art of discovering bridges between different areas of knowledge and different beings" (Klein 2004). The more the focus of attention is placed on the comparisons, the interrelations, the connectedness between different dimensions or 'levels' of reality, the more one may speak of a sensibility to patterns that connect, in terms of contents.

The sensibility to processes that connect also evokes,at the level of the individual, Richard Sennett's "craftsman", insofar as he is skillfully engaged in a dialogue with materials (Sennett 2008). Lewis Hyde summarizes well this dimension of Sennett's craftsmen:

> "And what is it that such persons know? They know how to negotiate between autonomy and authority (as one must in any workshop); how to work not against resistant forces but with them (as did the engineers who first drilled tunnels beneath the Thames); how to complete their tasks using 'minimum force' (as do all chefs who must chop vegetables); how to meet people and things with sympathetic imagination (as does the glassblower whose 'corporeal anticipation' lets her stay one step ahead of the molten glass); and above all they know how to play, for it is in play that we find 'the origin of the dialogue the craftsman conducts with materials like clay and glass'" (Hyde 2008).

At the level of social interactions, the sensibility to processes that connect also evokes quantum physicist David Bohm's notion of social intelligence as vested in the connectivity of genuine "dialogue",vs. the exclusionary process of "discussion" as mere contest of wills (Bohm 2006). The social intelligence of dialogue is complementary, but not identical with the dialogue with materials of the craftsman. Because "the intelligence that comes from dialogue may make it possible for something new to come into human relations [...] I think that dialogue will liberate a more subtle kind of intelligence than that used in making tools. The intelligence that creates and uses tools is not able to organize society properly so as to take into account the consequences of these tools" (Bohm quoted in Gablik 1991, p. 162).

Last but not least, the sensibility to processes that connect also relates to Arnold Berleant's understanding of aesthetic engagement, which Noel Charlton compared to Bateson's aesthetics (see boxed text below).

Arnold Berleant's aesthetic engagement

Noel Charlton (2008, pp. 145-157) draws parallels between Bateson's and Berleant's notions of aesthetics, which have many common points. Berleant points at an understanding of aesthetics which, he argues, was prevalent in Europe before the eighteenth century and is re-emerging since the 20th century: an engaged, participative understanding of aes-

thetics, with artistic practices involving observers as participants, as opposed to the disinterested, disengaged aesthetics founding a contemplative approach to art (as developed after Immanuel Kant), separating the art object from the perceiving subject.[25] Berleant's aesthetics, based on experience like Dewey's, also echoes the phenomenological insights, arguing that "[t]he arts bring us closer than any other social form to the immediacy of the human world as we know it" (Berleant 1991, p. 210). Berleant (1993, pp. 199-227) further analyzes how Kantian aesthetics drew strong 'borders' around art objects in a separate special domain (see also chapter 1). He argues that such an aesthetic stance is especially untenable in the case of the appreciation of nature, which involves a more integrated relational experiential process. Even Kant himself developed a separate understanding of the aesthetic appreciation of nature, which he called the "sublime": As noted by Berleant, the sublime is "the capacity of the natural world to act on so monumental a scale as to exceed our powers of framing and control [...] to produce [...] a sense of overwhelming magnitude and awe" (Berleant 1993, p. 234). The sublime is beyond the judgment of taste on beauty and ugliness.[26] Berleant argues that the experience of the sublime invalidates the illusion of separatedness and instead imposes connectedness and "total engagement [...] sensory immersion that reaches the still uncommon experience [...] of unity" (ibid., p. 237). In his view, the sublime can also become an example for more more mundane aesthetic experiences which can be experiences of a participatory aesthetics, not only with nature but also with art.

The sensibility to values that connect favors participatory polyarchic polities, i.e. regimes of authority allowing experimentation with various non-hierarchical configurations of work.[27] This sensibility also conveys a sense of humility towards the non-human, and an openness to the potentiality of moral inspiration from non-human elements (which will be further discussed in section 5, after David Abram's understanding of a phenomenological and animistic sensibility).

The characterization of aesthetics of sustainability is however not thereby completed. As mentioned a few paragraphs above, the insights from complexity theories necessitate a further characterization of aesthetics of sustainability as sensibility to complexity, based on Bateson's pattern that connects but also beyond its potential holistic caveat.

25 Cf. Berleant 1991.

26 For a discussion of Kant's sublime in the context of ecology and aesthetics, see also Fel 2009, pp. 50-53.

27 The topic of participatory polyarchic polities will be introduced in chapter 7.

SECTION 3: THE SENSIBILITY TO COMPLEXITY

> Everything which does not bear the mark of disorder and of subject is insignificant and mutilating.
> MORIN 1992, P. 395

> It is the tendency to reduction that deprives us of the potentialities of understanding.
> MORIN IN ED. NICOLESCU 2008, P. 31

Morin's "art principle"

Bateson's definition of aesthetics as the sensibility to the pattern that connects, is relatively comparable to Morin's "art principle" for systemic sensibility, already mentioned in chapter 3. However, Morin not only points at connectivity but also at complexity, i.e. the distinctions, contradictions, competition as well as the connections, symbioses and harmonies:

"The systemic sensibility will be like that of the musician's ear which perceives the competitions, symbioses, interferences, overlappings of themes in the same symphonic flow, where the brutish mind will recognize only theme surrounded by noise. [...] The notions of art and science, which oppose each other in the dominant techno-bureaucratic ideology, must be associated here" (Morin 1992, p. 139).

To be fair to Bateson, he too used the symphonic metaphor to evoke the aesthetics of the pattern which connects (while recalling the experience of an art exhibition in a personal letter) because listening to a symphony is at one level a sequence of sounds, and at another level an integrated experience. But Bateson did not explore the metaphor further, in its sensibility to complexity.[28]

And this requires a strong personal engagement and sensibility, Morin adds: It "requires the full use of the personal qualities of the subject in his communication with the object" (ibid.).

Indeed, the insights from complexity theories point not at a holistic sensitivity which would only consider complementarity and symbiosis (as e.g. Capra sometimes tends to do), but:

- a complex sensitivity that considers as much antagonisms and competitions as complementarities and symbiosis, and that transcends the contradictions so as to reveal the complementary tension of antagonism and complementarity;

28 Cf. Charlton 2008, p. 83.

7. Fostering Change: Art and Social Conventions

Introduction

Paraphrasing Merleau-Ponty, Suzi Gablik affirms "that it is not enough for philosophers – or [she] would add, artists – to create or express an idea; they must also awaken the experiences that will make their idea take root in the consciousness of others" (Gablik 1991, p. 108). Such a demand points at several questions, about learning, and about how certain experiences, arising in social interactions, may affect their beholders. Such questions interest the social sciences as well as psychology. Therefore, my attention will now focus on the concept of 'conventions' in the social sciences, and on specific insights from systemic psychology as developed by Gregory Bateson (with the concept of deutero-learning).

These insights are relevant to understand and analyze what may be happening at the points of interactions between artists and the rest of society, and at the border zones where art worlds meet the outside worlds.

The possibility to perform 'entrepreneurship in conventions' (i.e. to transform social conventions) will be discussed. This discussion will lead to the notion of 'double entrepreneurship in conventions', pointing at the challenges posed by the art worlds' own conventions. The possibility to perform 'double entrepreneurship in conventions' will be shown to depend also on the political setting of the art worlds, in the second section of this chapter which will introduce an analysis of 'polity conventions' in art worlds.

Considering art as a field of experimentation

If art practices related to the aesthetics and cultures of sustainability shall not be understood as restricting themselves, irresponsibly, to provocative attitudes, thoughtful statements and/or critical observations from within a mere inconsequential playground or sandbox, they shall however not be understood either as totally undifferentiated from everyday social interactions. When sustainability is understood as a continuous search process, art is then

to be constructed as a field of experimentation, engaged in everyday life and culture but with certain liberties allowing a sufficient flexi-security (i.e. the flexibility of allowing experiments, but with 'safety nets' in place). But why would such a field of experimentation be required, for the search process of sustainability? Gregory Bateson answered this question with the metaphor of an acrobat walking on a wire:

> "The healthy system, dreamed of above, may be compared to an acrobat on a high wire. To maintain the ongoing truth of his basic premise ('I am on the wire'), he must be free to move from one position of instability to another, i.e., certain variables such as the position of his arms and the rate of movement of his arms must have great flexibility, which he uses to maintain the stability of other more fundamental and general characteristics. If his arms are fixed or paralysed (isolated from communication), he must fall. [...] Note, in passing, that the analogy of the acrobat can be applied at a higher level. During the period when the acrobat is learning to move his arms in an appropriate way, it is necessary to have a safety net under him, i.e., precisely to give him the freedom to fall off the wire. Freedom and flexibility in regard to the most basic variables may be necessary during the process of learning and creating a new system by social change" (Bateson 1973, p. 474).

The question then is: How can such a field of experimentation be practiced in, in a connective way (rather than in isolation), i.e. allowing the experimentation to be expanding beyond the delimited confines of art worlds?

Section 1: Double Entrepreneurship in Conventions

How may social processes occur through artistic processes, that would potentially generate social change? To address that question, I developed and refined from 2004 onwards, a 'model of conventions', based on sociological research (and interdisciplinary social sciences / economics research) by the so-called 'School of Conventions' which operates across sociology and economics.[1] On this basis, I proposed an understanding of the 'artist as entrepreneur in conventions' (cf. Kagan 2004), which I later refined into an understanding of 'double entrepreneurship' taking more into account the internal challenges posed by the art worlds to social agents operating from and/or with the art worlds (cf. Kagan 2008a).

1 The roots of these uses of the concept of conventions plunge much deeper and allow different streams of interpretations, pointing at earlier sources such as David Lewis' definition of conventions, Herbert Simon's work on cognition and rationality, René Girard's 'triangular desire', Karl Polanyi's 'tacit knowledge' Keynes' 'conventional judgement' and further back with Ludwig Wittgenstein's 'rules' (implicit and explicit rules), American pragmatism (especially John Dewey), Max Weber and all the way back to David Hume's understanding of convention as reciprocal referentiality.

Conventions: a sociological and economic concept

The study of conventions calls forward a sociological and economic understanding of the social construction of reality departing both from the perspective of an autonomy of individual choice (as promoted by the methodological individualism of standard economics) and from a strict heteronomy of individual behavior (as would be inferred from a purely structuralist perspective).[2] The rationality and efficiency of individual behavior does not depend on an individual social agent's own logical computations alone, but also on their degree of coherence and compatibility with the social environment. Rationality is contextual: There are no inter-temporal universal rules for individual computation. And rationality is procedural: it is constituted through an interactive social process.[3] Interactive imitation or "Mimesis" in the definition of René Girard (1961), rather than computation, is the core human behavior. Mimesis works preliminary to interpretations and computations. Mimesis also structurally integrates the social context into the cognition of the individual. The individual's decision has meaning only relatively to his/her environment. This environment is constituted of conventions which give the individual points of reference to guide him/her.

I propose (as in Kagan 2008a) to define conventions as collectively constructed units of understanding of reality, organizing beliefs and habits around moving structures of interaction. They institute the coordination of action. They are constituted of both routine, non-reflexive relations and of more reflexive interactions through which participants may remodel their collaborations. Owing to an emergent process of rationalization in which individuals involved are inter-dependent, a convention supports discourses and devices constituting an information system (or information screen) that allows interpretation and evaluation of the social environment and of one's own behavior. Thereby, conventions overcome uncertainty.

Conventions allow relative stability. In a given convention, a number of beliefs (as well as a number of habits) are stabilized and considered as 'common sense': beliefs about the goals one is expected to aim at (in the social activities relating to the convention); beliefs about what kind of means

2 The conceptualization of conventions on which I am working, was launched through the 1980's and 1990's in France among an interdisciplinary team of economists and sociologists and is labeled as "economics of conventions" or "economic sociology of conventions": Cf. ed. Orlean 1994, and eds. Favereau and Lazega 2003. See also Biggard and Beamish 2003 for a short introductory review of this movement.

3 Cf. Simon 1976.

should be available (in order to attain one's goals); and beliefs concerning the perception of how things work and, subsequently, the causality models (or theories) one should use to translate means into ends in an appropriate way. It is the conviction that a certain convention is a reference for the others (the people one is interacting with in a given context) that makes behavior efficient for an individual acting in and/or upon the convention. It is the common trust in the convention that fosters this individual conviction. It is the coherence of the information system of the convention that fosters common trust in the convention. The information system is made of discourses and conversations (with a rhetoric highlighting values, principles, assigning roles to people and defining the boundaries of what is the normal realm of the convention) and of material settings that support those discourses and conversations.[4]

The actions by different individuals vis-à-vis the existing conventions, affect the coherence of the information system. Individuals can play strategically upon the information system to try and change the convention, to replace it by a 'suspicion' of that convention that becomes an alternative convention, or to move to (or create) a convention of another kind.

The concept of conventions in Howard Becker's *Art Worlds*

In the context of the sociology of the arts, the concept of 'conventions' was developed by Howard Becker (1982), who described the importance of conventions for the very functioning of 'art worlds'. In an art world, "the interaction of all the involved parties produces a shared sense of the worth of what they collectively produce. Their mutual appreciation of the conventions they share, and the support they mutually afford one another, convince them that what they are doing is worth doing" (Becker 1982, p. 39).[5]

Conventions as understood by Becker, provide a useful art-historical concept for explaining the artists' ability to contribute to the social construction of art works which bring emotional and cognitive responses in audiences (and expectations) because both sides share knowledge of an experience. The shared knowledge of bodies of conventions is part of a common culture. Members of the art world can therefore rely on earlier agreements and/or understandings that have now become customary, conventional. And different groups know different parts of the total body of conventions used by an art world. Conventions also regulate the relations between artists and (the well-socialized) audience, specifying the rights and obligations of both sides. Conventions undergo constant adjustments in response to changing conditions and changing strategies of individuals and groups, but they are overall relatively stable in the art worlds, and as Becker observes, revolutionary changes in conventions are relatively rare.

4 Cf. Gomez 1996.

5 Exact page numbers refer to the 1984 paperback reprint.

Knowledge of the relevant conventions and routine interactions following the terms of these conventions, define the outer perimeter of an art world. Traditionally in the arts (understood as an identifiable social activity in modern societies, whether 'high art' or more popular arts), the diffusion of new conventions coming from the creative core of an art world involves a process in which the first to understand (have the ability to decode) the worth and values of what is produced are the ones most involved in the production (creators, interprets), followed by 'serious audience members' who share some of the conventions (or the directly involved participants, in more participatory art forms), and through them (and their interactions with wider segments of society), only later do 'well-socialized members of the society' and the general public share an understanding and value the 'products' or other outcomes of the artistic practices.[6]

New conventions introduced by a successful artist work out as a new language.[7] Over time, they inter-relate and form a specific self-referential body of conventions, which audiences can learn 'by experiencing them'. However, more than mere experience and accustoming, the processes of construction of conventions involve rhetoric in the building of conviction and suspicion, in symbolic fights over conventional coherence (as will be explained below).

How do conventions work?

Individuals are driven to imitate one another and distinguish themselves from one another and thereby create a network of interdependent behaviors. The individual is able to perceive indications on how to take decisions, because he or she can find landmarks in the behavior of others; he or she can therefore position him- or herself towards these behavioral guides, and decide whether or not to imitate them. In Howard Becker's terms: "Even when you don't want to do what is conventional, what you do want to do can best be described in the language that comes from the conventions" (Becker 1982, p. 57).

The evolution of conventions depends both on:

- the intentional strategies of those individuals who decide to play on the rules rather than in the rules, to modify the terms of imitation rather than just imitate others,
- and on the unintentional behavior of individuals (or unintended consequences of intentional behavior) especially at systemic 'points of instability'.

6 Cf. also Bowness 1989.

7 By the way: Language itself constitutes a typical case of convention (cf. Lewis 1969).