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Beyond Dewey: Consciousness, Aesthetics, Metaphor, and Imaginative
Education in the making of Ecological Thinking:
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Dewey, Aesthetics, and Education.

The amazing Maxine Greene (1917-2014) saw the importance of imagination and aesthetics in life and in education: the aesthetic experience and the imagination of possibilities that it evoked, comprised the making of meaning in life. We had many conversations on such ideas after she had retired from Teachers College, and we both agreed that Dewey's *Art as Experience*, was his finest work on education,¹ instead of the his books that directly dealt with education used in most education classes.² I had first met Maxine in 1960, at the University of Hawaii, where she was a visiting professor in the university's summer session and I was a teaching assistant for another visiting educator, Julian Stanley, distinguished for his work in tests and measurements and later, for working with the gifted, at Johns Hopkins University; I had just completed a master's degree at Hawaii, and my advisor, Robert Clopton,³ had asked Maxine to read my recently completed masters thesis which was on the importance of aesthetics in the awakening of youth to the joys of mathematics. I used *Art as Experience* extensively in the thesis, as well as the views of the English mathematician G. H. Hardy (1877-1947) in his *A Mathematicians Apology*, in which he viewed mathematics as an art form, as "frozen music." At that time, I was concerned about how ordinary mathematics education failed miserably to inspire the large percentage of American students. I frequently had wonderful discussions of the beauty and elegance of mathematical proofs and solutions with fellow students, some graduate students majoring in

¹ Conversation, September 27, 2012, Greene's apartment, New York City.

² Almost a year later, on Sept. 20, 2013, I had my last visit with her in another of my (at least) annual visits to New York City; where we had a nice discussion, that included a visit from a graduate student at TC Columbia, who was interested in Hannah Arendt, another of Maxine's favorite thinkers. Only a few months later, on May 29, 2014, Maxine passed on.

³ Dr. Clopton and Greene were doctoral students of George E. Axtelle (1893-1974), who was a lifetime scholar and practitioner of Dewey's philosophy of education. He was one of the early leaders of progressive education when he came to Hawaii to head the Prince David Kawanakoa School in Honolulu that was founded in 1927. Clopton worked with Axtelle at Northwestern University, while Greene studied with Axtelle when he moved to New York University, Axtelle was the first director of the Dewey Project at the University of Southern Illinois, which ultimately published the complete works of John Dewey.

mathematics. Maxine carefully wrote a long response, basically supportive, and most encouraging.

Art as Experience had been the first book I had read by Dewey, and it colored my interpretation of Dewey's philosophy of education, even if education had not been at its center. Thus, later, I read *Democracy and Education* and *Education and Experience* from the holistic perspective of Dewey's aesthetics as if that was in the background of Dewey's emphasis on the social-political aspects of education that fostered democratic and scientific attitudes. But when I studied philosophy of education at Michigan, following that summer in 1960,⁴ two of my professors, Max Wingo in education, and William K. Frankena in ethics⁵, both great teachers and thinkers, never mentioned Dewey's aesthetics.

I also realized that my own interpretation of Dewey on education from the perspective of aesthetics, differed from most of my contemporaries and so it was a joy to connect with Maxine, whenever I visited her while in New York City, where we freely discussed aesthetics in everyday life, as well as in the arts often over lunch in her lovely apartment overlooking Central Park, and including the period when she worked with teachers and artists themselves, at Lincoln Center. As I shall indicate later in this paper, Dewey's aesthetics helped me open up to ecological thinking, so important to biology and living systems that had not been considered by Dewey himself.⁶

Dewey's philosophy of education had been admired for many years in the United States as he expressed American pragmatism in terms of the experimental and scientific approach to life in society, and its connection to the development of democracy from face-to-face communities to larger entities, including nations. But I discovered that the significance of aesthetics tended to be ignored by many of Dewey's followers in professional education..

I also came to the realization how and why, *Art As Experience*, soon after it was published in 1934, came as a surprise, to the young philosopher, Stephen C. Pepper (1891-1972): it extended Dewey's pragmatism into the domain of aesthetics in a way

⁴ My doctoral dissertation was on *John Dewey in Japanese Educational Thought*, and was published in 1964 by the School of Education, University of Michigan, in a series edited by Claude A. Eggertsen, who chaired my doctoral committee.

⁵ I am very grateful to Professor Frankena for his tutorials on Kant, which he offered when his course omitted Kant although it was listed in the course description, along with Aristotle and Dewey.

⁶ I submitted a paper comparing aspects of Dewey's ideas of teaching and learning to that of Zen Buddhism, which was my very first published article, while at the University of Michigan as a doctoral student. In retrospect, this paper shows how my take on Dewey at that time was completely colored by *Art as Experience*. The paper was published in the *Comparative Education Review*,

that Pepper would not have predicted, as the emphasis was not directly on pragmatic consequences, but on the significance of the aesthetic experience itself. Although Pepper nevertheless was most impressed by *Art as Experience*, to the extent that he regarded the book as “one of the four or five great books on esthetics, and is a classic though but five years old” (Pepper 1939, p. 389), Dewey, in his rejoinder to Pepper, argued that his book on aesthetics was not a shift in his thinking but that the significance of the aesthetic experience in life, and in education, had been always present in this thinking.

Very well, it may have been, as in parts of *Experience and Nature* (1929), but in his earlier and major work on education, *Democracy and Education* (1916), its importance was not emphasized or even mentioned: yes, we learned from experience, but the significance of experience in education and social life, lay in the consequences, including the ability to control future experiences.

In *Experience and Nature*, furthermore, Dewey notes that “Meanings do not come into being without language,” which suggests to me eliminating the visual arts (not to mention music without words), as significant sources of the aesthetic experiences. He seemed to be saying that “meaning” always involved verbalizing of experience. Of course that was what he spoke for as a philosopher, and that democracy was important in the freedom it promised in the sharing of meanings.

But Dewey did not recognize how much of what he had *written* before *Art as Experience* did not highlight aesthetics, even if they may have been in his mind. In one of Dewey’s important books on education, *Experience and Education*, published in 1938, the aesthetics of experience was almost absent, although he had already been seriously exploring aesthetics at that time. Yet, in *Art as Experience*, Dewey considers the aesthetic experience as “incomparable organ of instruction” :

It is by way of communication that art becomes the incomparable organ of instruction, but the way is so remote from that usually associated with the idea of education, it is a way that lifts art so far above what we are accustomed to think of as instruction, that we are repelled by any suggestion of teaching and learning in connection with art , But our revolt in is fact a reflection upon education that proceeds by methods so literal as to exclude the imagination and one not touching the desires and emotions of men. (p. 347)

In retrospect, then, this paragraph which I underscored in my masters thesis,, had led me to interpret his earlier work in education as grounded in aesthetics. I now interpret the editorial “we” who would be revolted by “any suggestion of teaching and learning in connection with art,” this suggests that Dewey in his earlier works had been directed

more to the political and democratic implications of proper education,⁷ rather than to the development of an aesthetic sensibility that would provide the ground for social and political concerns that Dewey's earlier work on education emphasized.

Although Dewey (1916) was familiar with the philosophical works on education including the followers of Herbart, whom he criticized, he did not even note in *Democracy and Education*, the work of Charles de Garmo, a noted American Herbartian in the study of education at Cornell University, who had written a notable book entitled *Aesthetic Education* in 1913, where he placed primary importance on aesthetics in education, and that the teacher himself/herself had to be aesthetically aware in order to teach for the aesthetic development of children and adults. He included all forms of art, from music to poetry to painting to theater, to the practical arts, that including tools, clothing, trains, machinery, architecture, and of course beauty in nature. DeGarmo was well acquainted with aesthetics, and in his book, cited Schiller, Kant, Hegel, William Morris, John Ruskin, Emerson, and even a contemporary, Dewey: in second chapter titled "Means," De Garmo opens with:

As John Dewey says, men attempt to enhance and perpetuate mental images charged with emotion by objectifying them. An aesthetic sense can therefore first of all be cultivated by creating mental images that are charged with emotion. Sometimes this may be effected by the mere contemplation of beautiful objects, as when one gazes at a sunset or looks upon a work of art. (p.9)

De Garmo was not a hard-core Herbartian, but tended to focus on the experience and its value, rather than on theories that attempted to explain. prefers to evoke the aesthetic sense especially in children, and even the elderly, by having them engage in art making (objectifying what is imaged) themselves: drawing, singing, playing, "for there is *surely* something" that the child can do artistically. (emphasis in original, p.9). Despite differences in philosophical premises, De Garmo and Dewey held, both placed on learning through direct experience of works of art.

Furthermore Dewey did not acknowledge the contributions of Kant and Schelling and Hegel to the development of aesthetics in philosophy, except to subject them to his polemics. Kant is dismissed in part because of the focus on the theoretical, rather than on the phenomenological aspects of sense experience, suggesting to me that he did not consider Kant's earlier, pre-critical work,, *Observations on the feeling of the Beautiful and Sublime* (1764).⁸ Hegel's philosophy had been important in Dewey's earliest work in philosophy but instead, Dewey discarded all of German idealism as absolutist,

⁷reference to Ryan's comment on this matter.

⁸In the translator's introduction that I used, John T. Goldthwait points out how this book reveals a more well rounded Kant, compared to the usual view of Kant as somewhat a solitary person who dwelt in a world of complex abstractions and who did not observe humans as emotional beings.

and laying the groundwork for authoritarianism and even fascist ideology. Dewey was more interested in promoting the distinctive aspects of American pragmatic philosophy and its association with democracy while highlighting the negative aspects of European philosophy, perhaps to the point of a mild kind of racist chauvinism, given the heightened hate of Germans, including German-Americans in the period before and after World War I. Randolph Bourne, who had been a strong liberal follower and student of Dewey, pinpointed this aspect of Dewey when he and other more politically influential liberals to give public support of Woodrow Wilson's entry into World War I. Dewey even hoped that war could be "educative" and could lead to a more democratic world, while Bourne pointed out that the resort of a whole nation to violence was against basic democratic principles. (cite Bourne's work here)⁹

I also suspect that Dewey did not have the aesthetic as a fundamental aspect in his life as a philosopher until he devoted his attention to the lectures that resulted in *Art as Experience*, under the influence of Albert C. Barnes (1872-1951). Dewey himself (like Hegel) did not seem much interested in music and the visual arts, but had a greater appreciation of poetry. Dewey even attempted to write poetry (which Maxine regarded as rather poor) that he himself often discarded.¹⁰ Barnes was the self-made, wealthy industrialist, who in his later years devoted himself to collecting and promoting art, and whose legacy is the magnificent art collection of the Barnes Foundation in Philadelphia, which was primarily a museum with education as its mission. Barnes alerted Dewey to the possibility that high art could be embraced by members of all social classes that included members of the impoverished, and that education through exposure to the high arts would be an important part of democratic progress. Barnes had been an ardent student and admirer of Dewey, and became one of his very close friends, despite the fact that Barnes had a gruff personality that often offended Dewey's colleagues.¹¹ Dewey dedicated *Art as Experience* to Barnes, who greatly expanded Dewey's understanding of painting he also provided financial assistance to Bertrand Russell when he was unemployed, resulting in Russell's *A History of Western Philosophy*. As you might know Russell was an ardent critic and witty gadfly to Dewey, who nevertheless asked Barnes to provide assistance to this gadfly who became an ardent pacifist beginning around World War I. He may have been among the earliest to use

⁹ Dewey was quite upset with Bourne's criticisms, and helped bring about the demise of *Dial*, the liberal literary magazine that also combined the literary with the political, when Dewey insisted on reducing the influence of Bourne in editorial policies, that eventually led to the resignation of a major financial supporter, who was close to Bourne. See Nicholas Joost, and also the excellent but differing interpretations of these incidents in Westbrook (1991), and Ryan (1995),

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¹¹ Harold Taylor, former president, Sarah Lawrence College, thought "... Dewey was the only person, I think, in the world, who could do anything with Barnes." (quoted in Lamont 1959, p. 46)

the term “weapons of mass destruction” in reference to the chemical mustard gas technology used in World War I that killed innocents as well as soldiers.¹²

Dewey, with Barnes’ support gained an important insight that the spectator of art can be deeply engaged in the work, so as to have an aesthetic experience. Such a turn suggests to me that Dewey tended to scorn “passivity” in favor of “activity” as educative; Barnes in his attempts to make members of the lower socio-economic classes appreciate and understand “high art” which was associated with snobbism and status. Through Barnes strong emphasis on social democracy in art, Dewey became aware that what appears passive (including listening or reading) can dissolve the distinction between “active” and “passive” as opposites in learning. perhaps if Dewey had gone through “active” rote learning of good poetry, he might have understood how rote learning has the possibility of being educative in that learning patterns of sound (even of nonsense syllables that had complex rhythms) and can be a way of learning the activity of creating music as well as poetry, and thus “meaning making.”

Alan Ryan (1995) makes the connection of Dewey’s discovery of how what is in the deep nonconscious level of mind is related to Kant’s insights:

For all his objections to Kant’s ethics and metaphysics, Dewey sounds a thoroughly Kantian note in insisting on the irresistibility of the human urge to find a meaning in the order of nature and in tracing that urge to the fact of our own existence in a world that is always threatening disorder, death, and dissatisfaction at the same time that it promotes order, life, and fulfillment if properly and adequately used for those ends.” (p. 287)

Kant was one of those who contributed greatly to the connection between the aesthetic and the ethical, in what might considered as patterns of ordered relationships.¹³ Bertrand Russell considered Kant’s categorical imperative as one of the great ideas on which democracy is based: a respect for each mind as an end in itself,¹⁴ (and never merely as a means). Thus violence and killing of others (including self) were never justifiable. Thus Kant attempted to describe a world society that would not have wars,

¹² I noticed his use of this term “weapons of mass destruction” in one of Russell’s pre WWII books, but have not been able to locate the work, and would appreciate if anyone can find information of the origins of this term, that became popular at the end at the beginning of this century.

¹³ Dewey’s Americanism seemed to disregard Confucian philosophy and its emphasis on harmony based on mutual respect between persons, and the connection between the ethical with aesthetic harmony, learning about Confucianism through the eyes of his Chinese students who had a stereotyped view of Confucianism, based on the abuse of the philosophy. Here Russell seems to indicate a deeper understanding of both Confucianism and Taoism.

but “perpetual peace.”¹⁵ The German thinker, Karl Jaspers, an existentialist as well as a neo - Kantian, expressed a deep appreciation for Kant’s conception of the civil society, the importance of law, combined with the need for freedom in all human beings, and the need for a deeply democratic world that was also transnational. Jaspers interprets Kant in terms of opening up philosophy to the present, rather than closing through proclaiming absolutes, as Dewey had insisted.

Kant is the indispensable philosopher. Without him we have no basis for criticism in philosophy. But he is no means the whole of philosophy, Working without images or concrete intuition, he opens up vast realms. But he does not fill them. With the forms he discovered, he made an immense contribution to the self-understanding of man; but he himself remains disembodied, because what he was, and what he was able to say, lie beyond any mere embodiments.”

Dewey had placed great emphasis on awareness, and consciousness as the basis for a sound philosophy, especially in science and in living the good life that was democratic in outlook. The guiding metaphor for organizing ideas for Dewey, was based on scientific method, living in a period that brought great economic and social change that resulted from the applications of science to the improvement of society. Metaphor as an organizing guide is an unconscious process that lies in the background of consciousness. (p. 154)

Continuity versus discontinuity in Scientific theory:

Charles S. Peirce recognized the importance of insights in the development of science and mathematics, when order itself was recognized in such discoveries as the periodic table in chemistry, and the infinitude of prime numbers by Euclid. This recognition was called “abduction” as a third aspect of science, the first two being “induction” and “deduction.”¹⁶ The insight can be generalized as noting that consciousness about consciousness are of differing logical types, and thus are not continuous (as Dewey seems to claim) but discontinuous, as in a “step function” rather than a continuous curve.¹⁷ This is how I interpret Kant’s derivation of the “categorical imperative” even if his “idealistic” language provides for dismissal by Dewey’s emphasis on the continuities

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¹⁶ I have discussed the imaginative leap in “abduction” to an unpublished paper which was originally present to this conference in 2005, entitled “Steps to an Ecology of Imagination: Abduction, Metaphor, Living Systems and Learning

¹⁷ Note that Bateson’s extraordinary book is entitled **Steps to an Ecology of Mind** (emphasis mine)

in all experience, including thinking.¹⁸ Bertrand Russell seemed to understand this in Kant's reasoning, and if you think about it, Kant and Russell were both deep mathematicians in their resolution of antinomies having a step functions that were part of Pierce's "abduction."

When we become conscious of metaphor, we tend to convert it into a simile, a non-metaphor, we express ideas into the prosaic, rather than the poetic; the metaphor when taken literally, is no longer a metaphor but a device that takes out the qualitative aspect of experience.

I think it important to have a double view that combines the conscious with the unconscious, where we can imagine both what is before our conscious awareness and what also in our unconsciousness. Consciousness permits examination and reflection on our aesthetic insights, but does not in itself provide the insight. "Abduction" seems to me a resolution of what appears to be contradictions, and seems another word that might include "enlightenment" in the Zen Buddhist sense.

In the European middle ages, the sacrament of the Eucharist was perceived as "real" and not merely symbolic, or as a simile; in more modern times, few fully experience this important Catholic ritual metaphorically, as perceiving the *relationships* involved in the ritual as reality; the material aspects, are signs of the relationship. This is not to say that the ritual is not meaningful to most Catholics when they receive this sacrament. This the way I would interpret the Japanese tea ritual in Japan, which continues to be practiced to this day and included in non-formal education institutions, such as Urasenke, which has spread globally today.

Dewey's philosophy had also considered intelligence as the deliberate and conscious forming of aims and purpose in education, as humanity's rise from the brutish and barbarous. Dewey was greatly influenced by Darwinian evolution and adaptation by natural selection to a changing environment; it was the evolution of consciousness and purpose that led humans to deal with the contingencies of environmental change and thus survive. Conscious purpose deliberately invents ways to transform the environment and self, even with the knowledge that there may be unintended side-effects; when undesirable side effects occur, purpose invents action that remediates the harmful side-effects that include the transformed environment and self: problem solving is continuous with experience. Dewey's emphasis on Conscious purpose, democratically formulated, using scientific intelligence, has become a fundamental idea in our conception of how to educate the new generations. However, *Art as Experience*, incorporated the freshness of the aesthetic experience, and the incorporation of the unconscious into the creation of art. This seemed to me a change in Dewey's thinking that came about when he seriously explored the aesthetic.

¹⁸ Dewey seems to recognize the discontinuity in his discussion of "intuition" in art making, but I think glosses over the discontinuity, emphasizing background and context as always present in the individual experience, even if unconscious.

Aesthetics Play and Puposiveness

One of the criticisms of Dewey I have is his view of “play” an event he associated with childishness, and as uncivilized, since it was often described in terms of pure delight with no serious purpose. Dewey was critical of Schiller and Froebel on this matter, and the Dewey School did not have a kindergarten that in which ‘play’ was one of the important components of Froebel’s pioneering work in early childhood education. We know that all mammals play, birds, and also some invertebrates (such as the octopus), and all have complex nervous systems, such as at least the beginnings of brain-like structure. Schiller’s theory of art as play is rejected by Dewey and although not a functionalist, he expressed the need for all great art to have a “purpose” such that form and substance were harmonized, integrated into a whole that was aesthetic. Dewey had the tendency to reject important practices in education, based on the philosophical justifications of persons such as Froebel and the followers of Herbart.¹⁹ However, Bateson and others have provided other justifications that relate to evolutionary and natural selection theory, that all the arts, as well as mathematics, philosophy, science, problem solving, exploration, are forms of play, some only practiced by human beings, but when colored by conscious purpose, as Dewey emphasized, the aesthetic whole is degraded.

Gregory Bateson had the highest regard for the place of aesthetics in human evolution, while ignoring John Dewey in his writings, primarily, I think, because discussing Dewey would create more confusion compared to clarity, in understanding his argument: he never spoke in response when Dewey was mentioned in our discussions; instead he proceeded with discussing his rather, at that time, unorthodox views about “thinking like nature.”²⁰ For one thing, many of the students who studied Dewey saw similarities in Dewey and Bateson, as I once did, but the similarities also discouraged discussion of dissonances in Bateson’s view as I think he seemed to understand that such discussions would only take us off the pathway he was patiently exploring²¹. Although Bateson was not a Kantian or even a neo-Kantian, he did appreciate Kant’s insights into

¹⁹See especially the excellent discussion of this matter in Ryan, p. 139-142.

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²¹ Bateson, at that time a chief researcher at the Oceanic Institute (a private non-profit) and I worked together in bringing the social critic, Paul Goodman, to the University of Hawaii. We succeeded in having the University sponsor an evening adult education course that was successful not only in enrollments, but also in terms of the high quality of the lectures and discussion groups led by noted members of the local community, including Bateson himself. I had difficulties at first in having Goodman accepted as a part time visiting professor, because there were many homophobic administrators. Bateson already had arranged for Goodman’s half time position at his Oceanic Institute. (Need to provide dates here of Goodman’s sojourn).

the two kinds of realities in Dewey's naturalism—one based on “things” and the other based on “relations,” as this separation as well as attempts at unifying, were in his work as an anthropologist important parts of understanding the ethos of other cultures, as well as individuals and/or groups that were pathogenically dysfunctional, such as alcoholics and schizophrenics.

Bateson's disregard of Dewey can be seen in his basic argument against Dewey's instrumentalism, instead showing that conscious intellect is a poor tool for long-range evolutionary adaptation because it is inherently insensitive to the complexity of healthy ecological systems that are in a kind of homeostatic balance. Short term thinking may lead to desirable consequences, but may have disastrous effects in the longer term.

Conscious purpose oversimplifies by thinking in terms of lineal sequences of causes and effects. The structure of ecosystems is such that it is a complicated network of pathways and linkages, connected in circular fashion; conscious purpose provides a distorted caricature of this structure and process.

Our conscious sampling of data will not disclose whole circuits but only arcs of circuits, cut off from their matrix by our selective attention. Specifically the attempt to achieve a change in a given variable, located either in self or environment, is likely to be undertaken without comprehension of the homeostatic network surrounding that variable. (Bateson, Gregory, 1972, p. 445)

Conscious purpose is indeed effective in altering the environment and may work to produce specific desirable outcomes (like the elimination of a disease) but at the same time may produce unanticipated side effects (like overpopulation) many years later. We are never fully aware of what undesirable and irreversible side effects will emanate from our purposes.

Although ecosystems have flexibility in that they have self-healing processes built into them, such as the diversity of living organisms and redundancy that comprise natural selection), The potential for ugly side effects that can't be readily corrected is greater as increasingly powerful technology is brought to the aid of our purposes, while the self is transformed into the pathological. As Gregory Bateson the anthropologist who explored the ecological metaphor noted that

Unaided consciousness must always tend toward 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, 1972, p. 146)

Bateson also points out that modern society today is characterized by many complex institutions which have the single purpose of maximizing themselves: business

corporations, trusts, political parties, unions, nations, bureaucracies, nonprofits, universities, and schools all based on imagined communities that become impersonal, compared to face-to-face communities).

In biological fact, these entities are precisely not persons and are not even aggregates of whole persons. They are aggregates of *parts* of persons. When Mr. Smith enters the board room of his company, he is expected to limit his thinking narrowly to the specific purposes of the company or to those of that part of the company which he “represents.” Mercifully it is not entirely possible for him to do this and some company decisions are influenced by considerations which spring from wider and wiser parts of mind. But ideally, Mr. Smith is expected to act as pure, uncorrected consciousness—a dehumanized creature. (Bateson, Gregory, 1972, p. 446)

Dewey lived at a time when universities were still in the early stages of becoming more corporate, and he directly took part as an intellectual in political matters as part of his democratic outlook. He did not seem to recognize that for most members of the “public” in a mass society comprised membership in an imagined community called “nation” objectified by law, and that the that democratic commitment at an abstract level required ultimately a trans-national outlook. ²² Dewey was a nationalist, and liberal, compared to the extreme nationalists of his time, but not liberal enough to think **transnationally, and thus also ecologically from a global ecosystemic point of view and holistic, too.**

Gregory Batgeson: Thinking Ecologically as Naturalistic

The maximization of any one variable in a homeostatic system disrupts the balance of the system, since homeostasis involves optimization of all variables in relationship to each other. Conscious purpose tends towards maximization, rather than optimization, since other variables are either ignored or dismissed. In the same fashion, individuals, when only acting as “parts” of persons not only tend towards creating imbalances in the larger system of which they are a part, but also tend towards pathological conditions themselves. The insanity induced in the ecosystem is reflected also in the neuroses of the individual.

Even without purposefulness, consciousness in itself provides limited and selected information about self and its relationship to the environment (the self is, after all, a

²² Dewey’s support of America’s entry into World War I and the resulting estrangement of a former student, Randolph Bourne, who questioned Dewey’s conception of democracy and multiculturalism, by supporting Wilson, suggests to me this interpretation of Dewey, Westbrook’s account of the Bourne incident shows how Dewey’s political views later moved him closer to Bourne’s perspectives years later.

part of the ecosystem). The limitation is *inherent*, since the “screen of consciousness” cannot report on itself those processes that provide the screen unless new components are added to do that job. But then, these new process components must in turn be included in the report, which again requires that still more process components are added, and so on, *ad infinitum*.

Of course, the *whole* of the mind could not be reported in a *part* of the mind. This follows logically from the relationship between part and whole. The television screen does not give you total coverage or report of the events which occur in the whole television process; and this is not merely because the viewers would not be interested in such a report but because to report on any extra part of the total process would require extra circuitry. To report on the events in this extra circuitry would require a still further addition of more circuitry, and so on. Each additional step toward increased consciousness will take the system farther from total consciousness. To add a report on events in a given part of the machine will actually decrease the percentage of total events reported. (Bateson, Gregory, 1972, p. 432)

Since the human mind is only a part of the global ecosystem, it further follows that consciousness of the whole is forever incomplete; we are dependent on the ecosystem, but without a full understanding of the complete workings of the complex and dynamic system that changes internally, while remaining whole. This assertion takes on the nature of a religious premise, that of reverence and respect, as well as one on which the biological and human science of ecology is based. Anthropologist Roy Rappaport brings together the relationship between sacredness, its aesthetics, and ecology:

Increased knowledge of the elements regulated by lower order controls, and the relations among them, does not necessarily, or perhaps even usually, lead to more effective regulation. The temptation to meddle, to subject directly to a higher order control the variables ordinarily regulated by lower order controls, probably increases with increased knowledge. But a little knowledge is a dangerous thing. An awareness of the principles of homeostasis does not supply the details of any particular homeostasis, and knowledge of some of the details does not provide knowledge of all. A number of attempts at ecosystem regulation by men informed by some, but apparently insufficient knowledge of the systems to be regulated have ended disastrously. It could be argued that increased knowledge of ecosystems results in decreased respect for them, and thus leads men to be guilty of, and subsequently to be punished for, what might be called ecological hubris. It is perhaps the case that knowledge will never be able to replace

respect in man's dealings with ecological systems, for, as we have already observed, the ecological systems in which man participates are likely to be so complex that he may never have sufficient comprehension of their content and structure to permit him to predict the outcome of many of his own acts. Any theory for acting in systems which the actor doesn't understand must include a large measure of respect for endogenous regulation. (Rappaport, 1976/77, p.p. 46-49).

Respect for the larger ecological patterns of which we are a part acts as a corrective to the excesses of conscious purpose. Bateson and Rappaport knew of each other's works as anthropologists, and points out that the relationship of interpersonal love embodies this respect between persons, and persons themselves are also ecological entities. Love and respect are relationships that remove consciousness from the distorted realms of purposefulness, of manipulation and contrivance. Bateson understood that since a we ourselves are ecological wholes, as well as parts of a larger whole, we can perceive ourselves as analogues to other human beings, not to mention, other living organisms, and even to the larger whole of which we are a part. Empathy is part of the situation. Bateson brings in Buber's I-Thou at one point in his discussions:

Martin Buber has classified interpersonal relationships in a relevant manner. He differentiates "I-Thou" relations from "I-It" relations, defining the latter as the normal pattern of interaction between man and inanimate objects. The "I-It" relationship he also regards as characteristic of human relations wherever purpose is more important than love. But if the complex cybernetic structure of societies and ecosystems is in some degree analogous to animation, then it would follow that an "I-Thou" relationships is conceivable between man and his society or ecosystem. (Bateson, Gregory, 1976, p. 446)

Buber himself also noted how we can have I-Thou relationships with other forms of life: with a cat, or a tree.

Bateson also proposes that music, dance, poetry, art, when they gracefully blend in the unconscious with consciousness provide a corrective to the narrow flattened-out view that purposefulness portends; art (not propaganda) transcends a contrived, manipulated quality without labeling itself so. Like the organism's relationship to the larger ecosystem, consciousness has an analogous relationship to the unconscious, which includes the material of dreams (non-digitally coded "information," non-prose, non-logical, the metaphoric, the analogic). Rappaport considers the unconscious as having a structure that has the potential for providing "wisdom" which is sensitivity and awareness of the complex circuit structure of living systems; the aesthetic is a basic foundation for our understanding of ecosystems.

While the unconscious does not contain information concerning ecological systems, the structure of the total mind, of which the unconscious and affective are parts, resembles that of ecological systems, whereas the structure of consciousness alone does not. Thus analogues of ecological systems constructed from the materials of the nonrational as well as the rational have a “structural wisdom” that analogues built from consciousness alone would not likely possess. (Rappaport, 1976/77, p. 64).

Bateson considers the thinking in wholes as an aesthetic process that (my words) results in good design—both aesthetically and instrumentally—as part of the continuing process of evolution. He considers the beautiful prehistoric cave paintings as evidence of how even preliterate man, before the advent of philosophy thousands of years later, had a sense of the aesthetic.

It is also a stochastic process, that is selective including elements from the random, a process that Dewey disregarded: that pattern and form always involves a background of noise or randomness; after all he lived in an age before we became aware of climate change and global warming, and the effects of nuclear technology used for peaceful purposes in disasters such as Chernobyl (in 1986) and Fukushima Daiichi (in 2011) disasters. But Dewey’s *Art as Experience*, seemed to point in the proper direction, even if steep steps are required in the leap that depart from Dewey’s philosophy in a significant way. Such a clear break would generate imaginative possibilities in a way more in keeping with the way “nature thinks.”

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Note: the year of the original publication is listed after the author in the text to give the reader a sense of time when the ideas were originally expressed in a publication; but the year of the publication that I used for this paper (in many cases translated versions from German) is listed after the publisher, and refers to its pages in my citations)

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