Art, Science and Aesthetic Ethics

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Art and science are mutually exclusive fields. So-called art/science collaborations are inequitable: one discipline always dominates by using the other as a tool. Such 'collaborations' are more expressive of a desire than a logical possibility. What many artists desire from the exchange is to insert themselves as citizens into the debates that arise from scientific inquiry and the application of scientific results. In which case, artists do not really engage science but ethics, and while art does not have much effect on science, ethics permeates and influences the agents of both fields.

Science is a system that uses observation and experimentation to describe and explain the material world. It continuously corrects and improves; it aspires to objectivity. Science is also the literature produced by people using the scientific method. Scientists are required to speak the same language (mathematics, for example); know its histories (the relevant literatures), internal disciplinary borders and maintain its external boundaries (metaphysics, emotions, biography, art, etc.).

Art has no agreed upon definition, no common system, methods, goals or boundaries. It admits the possibility of nearly everything. There are literatures *about* art—art history, criticism, philosophy of aesthetics—but they not art; they are meta-discursive disciplines with art as their subject. Art is subjective, expressive, usually imitative, often fictional, unsystematic, unconscious and extra-rational. Art is not a language; therefore, art works are not propositional. They may inspire, illustrate and communicate knowledge but do not produce it.

Science rarely crosses into the art realm—except, perhaps, to explain how Monet's late landscapes are due to cataracts, Van Gogh's "Starry Night" accorded to migraines and El Greco's elongated figures to astigmatism. Individual scientists occasionally use scientific imaging tools to produce stunningly beautiful images that they describe and even display as art. While definitions of art are elusive, art institutions are more conservative and rarely embrace such works. Curators and aesthetic philosophers argue that art has not been synonymous with beauty for a very long time. Some art works are beautiful but not all beautiful things are works of art. This may be a current prejudice. Because art is fluid, any thing, arguably and eventually, *could* be art. Even so, the inclusion of these pictures would not mean that science is art, only that some scientists are now considered artists. The images are not science, only the artistic result of using scientific tools: art can be made by any means and materials. The divide remains.

Scientific illustration might look like art. Drawing is an art form but not all drawings are art. Illustration is its own discipline. It is a technology or craft between, in this case, art and science. It is a descriptive tool of science. Too much art (creative interpretation and

expression) weakens an illustration as a tool for science. Too much accuracy, no metaphor, personality or subjective play, makes for a poor work of art.

Science is generally conscious of its limits. Art, however, rarely recognizes boundaries. Most art, as Plato complained, is imitative. It pretends to be other things all the time, including science—but looking *like* science does not make it science. Just as beauty is often mistaken for art, technology is often confused with science. Many contemporary artists employ technology: GPS systems, radiological imaging, computer engineering, etc. These artists are not doing science; they are just borrowing its tools.

While artists may describe their work with scientists and engineers as collaborations, in fact, they are using their craft as a tool for science or using scientific tools for artistic means. In the first case, scientific knowledge may increase but there is no contribution to art. In the second case, art may be advanced, but science remains unperturbed. A true art/science collaboration requires both systems to be affected and, hopefully, advanced.

Given that art and science are antithetical, their meeting ground must be on a third field that influences both, for example, ethics. Through plastic surgery and psychoanalysis, the performance artist Orlan is transforming herself so thoroughly that she hopes eventually to warrant a new legal identity. Her work is powerful because, if we can face it at all, we are forced to consider the ethics of her self-abuse and its reverberance for the whole realm of elective surgery: she elicits limits by crossing them. While Orlan is not doing science, and might not even be doing art (but who could say she is not!?), she *is* performing an aesthetic ethics that bridges and could affect both art and science.

Leonardo da Vinici's wonderful anatomical drawings seem to be the great exception that combines art and science. In that moment of recording his observations, he seems both an artist and scientist. However, again, he is really, at that moment, a scientist using his great drafting skills to record scientific research. When we recognize these objects as art—there is no evidence that he thought as much—we are not seeing them as scientific research. The scientific gaze and the artistic gaze use the same works differently. Science is looking for material fidelity; art is looking for expression and metaphorical meaning. Read as an aesthetic ethics, the drawings have us wonder about the propriety of a man cutting open the pregnant belly of an unconsenting woman to compare her dead child to the fetus of a horse. Such works are performative of an anxious presence that demands the intervention of an ethical consciousness which is provided, not by the artist, but by the viewer.

Ethics asks the scientist and artist equally to consider the implications of their research within the large human field. Because science is a true discipline, codes of ethical conduct are conceivable and enforceable. Contemporary society is more reluctant to control art. Because art is metaphoric and non-propositional, it persuades by evoking deep thinking and feeling in the viewer. Andres Serrano's autopsy photographs do not tell us how to think or behave. They shock us into developing our own thoughts and behaviours. Artists resist ethical guidance, and so some should, but if they conceive of

themselves as doing aesthetic ethics they might guide themselves. With a firm ethical sense they might produce art work that could impact scientists and science as well as art.

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