Getting Unstuck: Interdisciplinarity as a New Discipline

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Abstract: Most disciplines and sub-disciplines consider their particular specialization to be valuable in itself and superior to other disciplines. But compared with the huge leaps in the physical sciences, the social/behavioral sciences and humanities have made little progress. Since many of the physical science advances were the result of the merging of disciplines, perhaps interdisciplinarity should be tried. One path to connecting disciplines, sub-disciplines, and micro-macro levels is suggested by Spinoza's idea of part/whole methodology, exactly balancing concrete instances with abstract theses. Ideas by Pascal, A. Koestler, A. N. Whitehead, and E. O. Wilson may also be helpful. Any discipline, sub-discipline or level can serve as a valuable stepping-off place, but to advance further, integration with at least one other viewpoint may be necessary. Two brilliant examples are The Civilizing Process, by the sociologist Norbert Elias, and Freudian Repression, by the psychologist Michael Billig. Koestler's idea of "bi-sociation" may prove to be particularly rewarding. The way that Virginia Woolf's depiction of role-taking in interior monologue preceded the idea in social science is an extraordinary example. The need for integration may be the single most important issue facing social science, the humanities and their sub-disciplines. Given the scope of the social/behavioral problems faced by humanity, the sooner the better.

There is a substantial literature on the structure of academic disciplines, most of it quite critical. For example, Abbott's (1988; 1998; 2001; 2002) discussions are thinly veiled criticisms of the lack of progress of the social sciences. My own sketch (1995) was less serious but makes the same point: the incentive structure for serious research is weak, based less on advancing knowledge than other more immediate personal considerations.

Not only these studies, but the whole literature on the disciplines tends to be critical without offering any way forward. This paper will suggest a way forward through the fog of personal and social interests. The he biologist E. O. Wilson (1998) stated that the physical sciences have made huge advances but the social sciences and humanities have not. He argues that most physical science progress has been made when separate disciplines or sub-disciplines have combined: biophysics, physical chemistry, and so on. His plea for integration within and between the social sciences and the humanities was made fourteen years ago, but there have been little response (Repko, et al. 2011; Slingerland and Collard 2012).

Many readers of Wilson's book were offended by his careless biologizing of human conduct. For this reason, they don't use his term, consilience, but instead, transdisciplinarity. So as not to take sides, this report uses the neutral term interdisciplinarity.

Assumptive Worlds

Wilson has several pages of criticism of each of the major social science and humanities disciplines, including economics, psychology, and history. One of his comments on sociology concerns a quote from a leading sociologist of that time (Coleman 1990):

"The principal task of the social sciences is the explanation of social phenomena, not the behavior of single individuals."

Wilson takes issue with this idea, still strongly held by most sociologists, by noting that biology would have remained stuck in its 1850 position if it had stayed at the level of the whole organism, refusing to include cells and molecules. Perhaps in the beginning, pure sociology was a virtue, but treating it as the only way has become a vice.

Durkheim's study of suicide gave birth to modern sociology, showing that there is a social component in causation, independent of individuals. This is an important first step, but it is not much help for understanding suicide, because the relationship is tiny. The more obvious meaning of Durkheim's finding and its replications is that the social component is NOT the major cause, or even one of the most important causes.

Alfred North Whitehead, a philosopher of science, made an important point about advancing learning:

A clash of doctrines is not a disaster --- it is an opportunity…In formal logic, a contradiction is the signal of a defeat; but in the evolution of real knowledge it marks the first step in progress toward a victory. (1962, pp. 266-267).

Koestler (1967) had proposed a similar idea that he called "bi-sociation ," being able to entertain two utterly different points of view simultaneously, by moving quickly back and forth between between them (Turner and Fauconnier 2002). He thought all real advances were born in this way.

It would be difficult to exaggerate the importance of these ideas: **BI-SOCIATE OR ROT**. Every discipline lives in what has been called an "assumptive world," beliefs and practices that go without saying, taken completely for granted. Disciplines, for the most part, actually live in two assumptive worlds. The first is the particular outlook of the discipline itself. For example, most sociologists assume without thinking about it, that limiting study to the social/cultural world, and excluding the individual is the only way to go. Even more strongly, academic psychologists are completely and irrevocably sold on using the scientific method and NO OTHER. These assumptions are no longer viable, but that doesn't seem to matter.

A second world that researchers live in is the assumptive world of the larger society of which they are all a part. One example: until recently, none of the social/behavioral sciences or humanist departments had sections on emotions. Emotions are at least as important as behavior, cognition, perception, economics, politics, ecology, and so on, but they are still getting short shrift, at best. Relying on unconsidered assumptions tends to block advances of knowledge completely. Interdisciplinarity sounds a generic wake-up call: **the earth is not flat**.

One step would be to encourage some researchers to become generalists after their initial training in a discipline. This step would not compete with disciplines, but increase the number of those who attempt to integrate. At present, the number of generalists seems tiny. A second

step would be to establish an institute for generalists. Perhaps there could be departments specifically oriented to interdisciplinarity.

Part/Whole: An Interdisciplinary Path

One of the first philosophers of science, Spinoza (1632-1677), outlined what amounts to a method for achieving bisociation. He proposed that human beings are so complex that to even to begin to understand them, one needs to move rapidly back and forth between "the least parts and greatest wholes." What he called least parts were concrete particulars; "greatest wholes", abstract ideas, concepts and theories. (Sacksteder 1991; Scheff 1997). William Blake stated a similar idea in one sentence: "Art and science cannot exist but in minutely organized *particulars*." (c. 1820).

Everyone uses Spinoza's method unthinkingly in daily life. Everyday discourse would be impossible to understand in any other way, since if taken literally, it is fragmented, ambiguous, and incomplete. In this case the least parts of discourse are the words, gestures and paralanguage, and the greatest wholes the meanings constructed from these least parts.

A comparison of the work of two master sociologists, Cooley (1922) and Goffman (1959), can illustrate the relationship between parts and wholes, especially the need for balance between them (Scheff 2011). Cooley provided brilliant wholes in the form of general propositions, but insufficient parts, Goffman, brilliant parts, in the form of concrete examples and new concepts, but not enough clearly stated wholes, in the form of explicit hypotheses.

Two Examples of Integrative Studies

The sociologist Norbert Elias's expansive study of modernization (1939; 1994) involved a textual analysis of etiquette and educational manuals over a 500-year period of European history in three languages. By close examination of the texts, he found evidence that as shame replaced physical punishment, it also became increasingly invisible. Although this study is widely recognized as his masterpiece, it still has not gotten the credit it deserves. One reason, perhaps, is that as he demonstrated the invisibility of shame in modern societies, his own study is less visible than it should be for this reason (Using Google Ngrams 1800-2000 in five languages, my recent paper [Scheff 2012] finds empirical support for Elias's shame thesis).

A study of Freud's writings, both his cases and his own letters, by the psychologist Michael Billig (1999) used a close textual analysis of all of Freud's writings to reconstruct the psychoanalytic theory of repression. His study showed that repression seems to be caused by social practices: parents teach children to avoid certain issues (such as sexuality and anger) by distracting them to the point that the children learn to also distract themselves. It would seem that psychoanalytic theory, which is entirely psychological, needs a strong social component.

Although not cited by Lehrer's study of social science predicted in literature (2007), the early scientist/ theologian Blaise Pascal (1660) proposed a solution to the enmity between science and the humanities. He thought that advances in understanding require both "the spirit of *geometrie*" (system) and "the spirit of *finesse*" (intuition). Intuition creates new ideas, system is

needed to test their validity and refine them if they are valid. If this is true, the social sciences and the humanities badly need each other.

Humanist/Social Science Interdisciplinarity

Connecting many disciplines, Lehrer's book (2007) proposed that literary figures like Walt Whitman, Marcel Proust and Virginia Woolf foresaw developments in current studies of self psychology and of neuroscience. This book provides examples of benefits from integrating social science and literature.

An earlier article (Scheff 2000) provided several quite specific examples of the way that the novels of Virginia Woolf foretold key ideas in the social sciences. The most surprising is her treatment of what is now called "role-taking" in thought, how we live in the minds of others without realizing it. The social philosopher G. H. Mead (1934) and his many followers developed a whole social psychology of Symbolic Interaction around it.

Seven years before Mead's book (1934), Woolf's 1927 novel <u>To the Lighthouse</u> was largely based on Woolf's taking the role of her own mother, who is the basis for Mrs. Ramsay, the leading character. Woolf's intuitive understanding of the process of role-taking is made unmistakably clear in a part of Mrs. Ramsay's interior monologue that critics have come to call "The Brown Stocking" episode (Auerbach 1953). Auerbach gave it this name because it takes place during a few seconds when Mrs. Ramsay is trying on the stocking she is knitting on her son's ankle. It is relevant that Auerbach, who first reported the psychological depth of this incident, admitted not understanding the substantial passage ofinner dialogue that is described below.

The last part of the two pages of interior monologue begins with what seems to be an actual dialogue, a phone conversation between Mrs. Ramsay and William Bankes. But the phone conversation is taking place not from Mrs. Ramsay's point of view, but from Banks's. The section starts with a compliment that Banks pays to Mrs. Ramsay, that "Nature has but little clay like that of which she moulded you." After further compliments, Bankes states, either to Mrs. Ramsay or to himself, that yes, he would catch the 10:30 train, which is what the phone call is ostensibly about.

The point of view is obviously not Mrs. Ramsay's, but Banks's. How could this be? What Woolf seems to be doing is showing that Mrs. Ramsay imagined a sequence of events beginning with an actual compliment to herself, but then going on to carry through the compliment to a sequence of thoughts and activities as they might have occurred to Bankes.

Mrs. Ramsay knew that Bankes was an admirer of hers, and she also knew his habits quite well. She is thinking of the problem of Mrs. Ramsay and her beauty from the point of view of an admirer of hers. <u>She is imagining herself from Mr. Bankes' point of view, as Woolf, in the two monologues, is imagining the world from Mrs. Ramsay's point of view, a world within a world</u>. Just as Mrs. Ramsay was able to plausibly construct the world from Mr. Banks's point of view, because she knew him well, so Virginia Woolf was able to plausibly construct the world from Mrs. Ramsay's point of view, since she knew so well the model (her own mother, Julia Stephen).

When Woolf's sister Vanessa read <u>To the Lighthouse</u>, she wrote to Virginia "...you have given a portrait of mother which more like her than anything I could ever have conceived possible. It is almost painful to have her so raised from the dead. ...as far as portrait painting goes you seem to me to be a supreme artist..." (Lee 1997, pp. 473-474). But she was not only an artist, but could have also been an inspiration to social scientists.

Woolf has her protagonist, Mrs. Ramsey, "living in the mind of others (as with Mr. Bankes) without knowing it," as Cooley would have it. But the Ramsey-Bankes episode shows that Woolf knew that she was living in the mind of her mother, because she has her mother do the same thing with Bankes that she was doing with her mother. Such a specific, concrete and detailed example of role-taking is totally absent in Cooley's writing, and although present, not made explicit in Goffman's.

Another thing that is illustrated concretely in Woolf's writing that is absent from Cooley and only implicit in Goffman is the reason that people don't know it: the incredible speed of inner speech. All of the interior monologues in Woolf's work, but especially The Brown Stocking episode, clearly show that it is hundreds, if not thousands, of times faster than external speech. Current studies of consciousness have yet to catch up with Woolf in this matter. The division between the humanities and the rest of the disciplines seems particularly difficult to change.

Linkoping University in Sweden began organizing departments in terms of "themes" rather than disciplines in 1980, which suggests a strong emphasis on interdisciplinarity, both in research and teaching. However, the current arrangement (http://www.liu.se/en/?l=en) suggests that some traditional divisions are still in place:

- Faculty of Arts and Sciences
- Faculty of Health Sciences
- Faculty of Educational Sciences
- Institute of Technology

Perhaps the next major step is to organize departments or institutes that incorporate the humanities in with the social and physical sciences.

Conclusion

As already indicated, Pascal (1660) long ago implied that the sciences and humanities need each other, and all disciplines and sub-disciplines as well. Specialization is still a good idea, but not as an end itself. Rather it should be balanced by integration between specialties. If this is true, the social sciences and the humanities need to connect, and also the disciplines and sub-disciplines within and between them. It therefore seems that there should be groups in all social and humanities disciplines trying interdisciplinary or other new approaches, and that this is a crucially important matter.

The issue is important far beyond the universities. Unlike other species of creatures, humans have become capable of destroying other humans en masse, even ALL other humans. Ironically, this capability is a function of the huge advances of knowledge in the physical sciences. We are

very near, or may have arrived at the point where a single "shooter" may be capable of destroying every living thing on earth.

In these dangerous times, perhaps one interdisciplinary theme would be to find out what leads to the kind of autism-like syndrome that severs all empathy for other humans. Empathic connectedness with other members of the species is hardwired into humans just as it is in other mammals (Icobonie, 2008, pp. 264-265; Corballis, 2012, Ch. 8). What are the social, psychological, economic and political mechanisms that lead to to disconnection and complete alienation from others both at the interpersonal and intergroup levels? If all disciplines would start working together on this problem, we may be able to solve it before it's too late.

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