Educational Science and Meaningful Relationships

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I am most impressed with the ambitiousness of Greg Seals' project in this essay. Building upon John Dewey's conception of experience, he endeavors to name the key components of educative experiences and to articulate the basic relationships those components have to one another in composing powerful educational events. He aims to provide the conceptual buttress for an educational science, which is no small task, since he believes, like Dewey, that an educational science cannot be created from measurements and correlation without "general principles which indicate *what* measurements to conduct and *how* they are to be interpreted." Towards the end of developing those general principles, Seals offers an analogue to Galileo's conception of gravity—a formula that accounts for the "educational force" of an experience.

As Greg and Dewey reason, we presently confront the difficulty of translating the knowledge of scientific research into the prescriptive maxims of practice. The sort of regularities recorded in psychology and sociology cannot be simply translated into maxims of practice, because they describe broad generalizations which may or may not apply to the complex specifics of particular educational contexts. Translation from research to practice will be aided, in Seals's eyes, if we have a basic understanding of the components of educational experiences and the interrelationships of those components. By focusing on those aspects of experience which help us understand when an experience has educational force, Seals hopes that he is helping us understand which components of the student's experience need to be measured, or at least asked after, if our practice is to be informed by research which captures statistical regularities.

I think Seals would like to see a science develop which focuses upon understanding the interrelations of the components considered in the formula articulating "Dewey's Law": the relation of past and present experience, the coherence of present experience, the coherence of present experience with future experience, and the relation of the situation to the student's understanding. Seals's formula, for instance, predicts that the educational force of an experience will be reduced if there is insufficient continuity between the students' previous experiences and her present experience, or if the present experience is insufficiently coherent. Educators, we might infer, would be enabled by research that helped them see what types of lessons were experienced by many students as coherent.

Greg's attempt to provide an explanation of the key aspects of experience is based on his profound ethical commitment to locating educational research within the phenomena most critical to education. Seals provocatively links Dewey's concerns with translation to the issue of education as an endeavor with its own ends, for he is critical of practices which impose upon educators the aims of other institutions, whether they be the aims of industry or the analyses of sociologists. Somehow education needs to be informed by science without being imposed upon

by science; as Seals quotes Dewey, somehow education needs to be "an activity which includes science within itself." Seals insightfully suggests that a basic step in this direction lies in articulating an overarching conception of experiences with educational force, that is, if the guiding vision for an educational science is based on an effort to explain what makes rich experiences educative.

This very idea, that a science of education needs to be founded upon a universalistic characterization of a student's experience, strikes me as most profound, and if I were — like Seals — following a path towards the creation of a sound educational science, I think I would be extremely receptive to his argument. However, my own studies of Dewey's project take a different direction than Seals's, and before I compare Seals's direction with my own, let me say just a little about how I understand these sorts of disagreements. I am not among those philosophers who feels confident that my theorizing or the debates among philosophers are soundly based in reason, and I am rather suspicious of philosophers like Plato who claim to have a privileged access to truth. Rather, I am far more comfortable with Socrates' statement that he knows nothing. Philosophy for me is exploration. We are confronted with an overwhelming universe within which a plurality of theoretical perspectives are to be embraced as our respective, humble attempts to come to grips with processes that will forever remain beyond our grasp. Different theories are divergent and sometimes convergent paths of thought which we should cherish insofar as they edify us, help us lead better and more moral lives, and help us create more just societies. So, as I offer a divergent perspective from Seals's, I am not attempting to discredit his position or offer a decisive rebuttal. Rather, I am pointing out a different path of thought — assuming that we are someway along both paths, without knowing where either path will lead.

Dewey's discussion in "The Sources of a Science of Education" and Seals's discussion of Dewey assumes what many refer to as an Enlightenment worldview, which posits a law-governed universe which can be progressively explained via science. The physical sciences are commonly said to have illustrated the power of scientific research devoted to disclosing natural laws, and even though Dewey warns that the social sciences are "relatively backward," he nonetheless expects us to follow the direction charted by the natural sciences. It is critical to recognize that an implicit metaphysics is present in this vision of a universe governed by laws. This is the familiar Deistic cosmology that posited not merely the existence of physical laws but a society that was similarly governed. Despite the familiarity of this narrative, it is an item of ontological faith that leads us to seek universal descriptions of educational interactions and broad regularities in the ways humans behave. We might, just as easily, start from the presupposition that each educational encounter is unique and can only be understood in relation to its specific context.

I start from the theoretical assumption — developed by theorists like Heidegger and Merleau-Ponty — that educational events are composed of relationships among students and teachers, and I am not comfortable making the further assumption that these relationships can then be explained by reference to law-like statements. Education is an intersubjective process where meanings emerge that are not merely the individual contributions of the people involved. While I do share Seals's and

Dewey's romantic urge to isolate that which is "internal" to education, my relational ontology would not allow me to find that which is internal to education solely in the experience of the individual student. Internal would need to refer to that which is internal to educational relationships. Thus, it might refer to the dynamic that occurs when a reading teacher coaxes an interpretation of a story from a shy student, or to the push and pull between a teacher who is challenging students' assumptions and the students who are resenting the intensity of the engagement, or to the steady leadership of a didactic teacher whose students trustfully follow her direction. The dynamics of meaningful educational relationships are multiple and mind boggling. In some cases, students will see a clear relationship between their previous experiences and the present one, while in others they may emerge from the lesson entirely baffled.

Given this path of thought, one's hope for educational understanding probably lie less with endeavors to find broad generalizations than with the development of relational understandings. Teachers and researchers might begin from the assumption that they wish to understand the dynamics of powerful educational relationships, trusting a combination of intuitive thought and analytic reasoning to guide them in discerning which educational relationships are most fruitful. Teachers and researchers might observe and interpret those relationships that we find most powerful in the hopes that our ability to understand and relate to others will be improved in the process. Attention should be focused on the give and take of the relationship with a commitment to seeing those cases where a burst of meaning for students and teachers occurs. And oppositionally, educators might look at the dynamics of oppressive educational relationships in an effort to gain both an intuitive and analytical understanding of dynamics which characterize many failing educational relationships.

Dewey — I am sure — would find this a bit haphazard. Even though he places great faith in the intuitive understanding of great teachers, and even though he considers the insight of first-rate teachers to be the most innovative source of educational knowledge, he complains that the "successes of such individuals tend to be born and to die with them: beneficial consequences extend only to those pupils who have personal contact with such gifted teachers." Thus, he seeks a way of producing educational knowledge that will build over the generations and be transferable to novice teachers. Yet, his hopes may be similar to that quest for certainty in being an epistemic impulse born of human need, not born of the character of education. Perhaps we can best foster widespread understanding of educational endeavors if schools and colleges of education are devoted to creating and maintaining cultures where a sustained commitment to the understanding of educational relationships is pursued. This is admittedly, a less optimistic view than Dewey and Seals offer us, but it may be in keeping with the dynamic character of educational relationships.

^{1.} John Dewey, "The Sources of a Science of Education," in *John Dewey: The Later Works, 1925-1953*, vol. 5, ed. JoAnn Boydston (Carbondale: Southern Illinois University Press, 1984), 11.

^{2.} Ibid., 20.

^{3.} Ibid., 4.