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ABSTRACT

Sociopolitical influences on education and research in the United States, China, and the Soviet Union are contrasted. Discussions with American scholars who have knowledge of educational practice in socialist nations are presented. The major philosophical difference stressed by these schclars is the pervasive influence of dialectical materialism on interpretation of scientific data. Institutional considerations of Soviet higher education include highly selective admission policies, financial aid, and guaranteed employment. Soviet educational research stresses qualitative detail and process complexity, although on smaller scale projects than are generally undertaken in American research. Post-revolutionary China has focused on sacrifice of traditional academic freedoms in favor of collective interests, acceleration towards socialism and communism, and the joining of work and schooling. Investigation of Western scholarly research indicates that philosophical/political influences are present under the cover of neutrality and objectivity. The conclusion is that Western education and research will improve if graduate students study sociopolitical theory; emphasize mutual cooperation, criticism, and self-criticism; and direct their research towards socially defined goals. Financial support, employability, and a planned collective ethic are suggested as improvements in our capitalist orientation towards education and research. (Author/DB)

# CROSS CULTURAL CONSIDERATIONS FOR EDUCATION AND RESEARCH

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Cross cultural perspectives are important for any scholarly endeavor. Differing cultures and social systems produce contrasting assumptions and expectations. Although the scientific method assumes a value free posture, so much of what enters into the practice of research will reflect these differing cultural traditions. Problem definition, research design, analysis and interpretation, the generalizability of results and, of course, funding are all inevitably influenced by other than purely scientific considerations. Education, as one of the "softer" sciences, must be that much more sensitive to these influences. These considerations have obvious and significant implications for education and research.

For the sake of expediency I have focused on two cultures that offer marked social and political contrasts. Within this framework I will sketch out a comparison of educational training and research theory and practice. Admittedly, this is a large topic for a brief paper to do much justice to. Yet, a general introduction to this issue should be of value. For this I have selected the Soviet Union and the People's Republic of China since both represent sociopolitical and historical traditions profoundly different from our own, yet both value education and reserach highly.



First, the Soviet Union and some considerations for science in general. I began my investigation by talking with mathematics Professor Dirk Struik of MIT who has delved extensively into the history of his discipline while retaining an abiding interest in the larger social context in which science functions. He doubted that there would be any real differences in the way "hard" science was conducted in either the USA or the USSR. Training practices appeared to be quite similar; teamwork was emphasized, research

institutes were large and quite dependent upon government funding. Struik suspected that pressures on scientists in both countries would probably be quite similar.

That discussion led me to Harvard Professor Barbara Rosenkrans, a specialist in the history of medical science. She was quick to insist that differences at least in medical research between the US and the Soviet Union certainly represented real differences in socio-cultural values and priorities.

That conversation led me to one of Rosenkran's colleagues, Lorin Graham, also of Harvard's History of Science Department. His text (1972) on science and philosophy in the Soviet Union remains one of the definitive works in the area.

The issues that Graham focused on were intriguing in and of themselves but especially so as a backdrop to a comparison of educational practices in research and training in the US and the USSR.

Most scholars in the West are aware of the Lysenko affair where the notion of the inheritance of acquired characteristics was exalted by the interpreters of Marxism-Leninism as the guiding principle in research on human characteristics and potential. Disagreement was suppressed. Scientists in the West righteously, and correctly, condemned this as an unacceptable intrusion of an external belief system into the objectivity that is science. How could scientists function with integrity where philosophy and politics intruded so directly into their pursuits? Was this example typical of the conditions in which Soviet science functioned? How has Marxism affected research and study?

In general, Graham found that Marxism is indeed "taken quite seriously by some scientists, less seriously by others, and is disregarded by still others."(p.5) For those who have adopted a Marxist perspective, dialectical

materialism has been influential for some of their work and in certain cases, insists Graham, has helped them to arrive at views that won them international recognition among foreign colleagues.

The Lysenko affair was indeed political, but as such it was unrelated to the philosophical tenets of dialectical materialism. Curiously, it has been the controversy over quantum mechanics that has touched dialectical materialism closely as a metaphysical foundation for science.

Dialectical materialism, what is is anyway? The importance of going into this to some extent is important as later discussions will suggest. As interpreted by Stalin (1939) the four laws of the Marxist dialectic method are: (1) nature is an organic whole in which phenomena are organically dependent on, and determined by, each other; (2) nature is in a state of continuous movement and change; (3) this change consists of slow and insignificant quantitative change which results eventually in perceptible and fundamental qualitative change; and (4) internal contradictions are inherent in all things (i.e., the struggle of opposing tendencies).

Philosophical materialism, upon which this dialectic method was superimposed, assumed the following: (1) the world is material, its phenomena are constituted by different forms of matter in motion; (2) matter exists independently of the mind rather than as mental phenomena; (3) the world and its laws are fully knowable as objective truths verifiable by experiment and practice.

As a philosophy of science, Graham concluded, dialectical materialism has been a significant force in the Soviet Union, "not in promoting or hindering fields of science as a whole, but in subtle areas of interpretation."(p.8)

Kornilov was the first to apply Marxism to psychology. Central to this interpretation was the dialectical principle of universal change. No static objects existed, only processes where everything was dynamic. The dialectic

further insisted upon the principle of interconnectedness, lending a nonreductionistic focus to inquiry. With respect to materialism external reality was stressed as the ultimate source and object of knowledge. This view contrasted with that of idealists who stressed man's mind as the organizing source of knowledge and even object reality. Ultimate meaning for idealists would often be found in religious or metaphysical values.

Materialism, like its denial, is a philosophical position based on assumptions that can be neither proved nor disproved in any rigorous sense. Yet, insists Graham, since the 17th century supporters of materialism have forced its detractors to revise their arguments in a more fundamental way than the reverse.

Furthermore, Graham maintains, the Soviets have had a habit of making this philosophical background plain for all to see. When compared to our own experiences, the history of Soviet science gives ample evidence of the influence of different philosophical assumptions in generating research and forms of expression. This relationship of science to philosophy, insists Graham, will not disappear where those philosophical assumptions are merely kept out of sight. Where those assumptions are ignored, whether deliberate or naive, undesirable biases may unwittingly intrude.

"In the hands of its most able advocates," concludes Graham, "there is no question that dialectical materialism is a sincere and legitimate attempt to understand and explain nature. In terms of universality and degree of development, the dialectical materialist explanation of nature has no competitors among modern systems of thought."(p. 430) The philosophical grounding of our graduate programs, then, is an important consideration.

One further point needs emphasis. Beyond these philosophical differences, there are also institutional considerations. The Soviets remain much more selective in their admissions to graduate programs. Once admitted all students receive state scholarships or stipends based in part on financial need and in part on grades. This fact has undoubtedly had much to do with the ability of most Soviet graduate students to complete their academic work in the expected three year time period. Upon graduation the Soviets are also able to guarantee employment although some students resist rural assignments (Freeman & Young, 1971).

This contrasts sharply with the much more open admissions policies of most American graduate schools of education, the lack of guarantees for financial support or future employment - the free enterprise and market response dynamics of the capitalist system applied to the educational establishment and mission.

Yet, a less selective admissions program does allow for more latitude in making decisions concerning an applicant's qualifications, or at least postponing those decisions for the present. The responsibility would then lie with the individual and his or her ability to survive and prosper -- or get into pottery or leatherwork or taxis -- a tried and true tenet of American life. Whether or not such a structure is best for research and study, however, is open for debate.

While we may decry the proliferation of professional journals and publications, the competition for employment and promotion dictate both quality and quantity of scholarship, with the greater emphasis apparently and unfortunately on the latter. As a result, research is often segmented and short-sighted, the same data appearing in several different articles and papers.

In the Soviet Union educational research stresses more qualitative detail and process complexity. Small groups are studied under varying

experimental conditions and over time. As a result, problems of over-generalization and oversimplification are diminished. Statistically, however, results are admittedly often quite "messy".

One final point requires mention. Soviet educators and psychologists have been called upon to build a theory of education applicable to the "new Man". This is what so impressed Bronfenbrenner (1970). While Western researchers seemed obsessed with describing in minute detail what each child could or could not do, the Soviets appeared much more concerned with what the child could or should become.

Circumstances in the People's Republic of China, however, reflect much more drastic differences. The Chinese are still much closer, both chronologically and philosophically, to their revolution than are the Soviets to theirs or we to ours for that matter. Bourgeois ideas in education have been severly attacked, American pedagogical practices refuted. Professors have been expected to sacrifice traditional academic freedoms of individual inquiry for the pursuit of collective interests. Peking University was attacked for its liberalism and lack of organization. All teachers and students at the university were to be made aware of the necessity of reform, so that everyone would voluntarily undergo mind-reform to be better able to serve the people. The new curricula was to include traditional lectures and study along with an emphasis on criticism and self-criticism (Yin-Ch'u, 1965).

In a speech before members of a research group a ranking Chinese official (Po-ta, 1965) delineated what the fundamental orientation of the Academy was to be: the needs of the people were to be met through economic construction, defense, cultural and material elevation and acceleration toward socialism and communism. The cry was to be connected with practice; correct application was stressed. Scientists were warned not to pursue trivial issues. Research was to be built upon

collaboration and critism.

The foundation of this revolutionary ethic of education was tied to the leadership of the Communist Party, stressing a proletarian orientation for the learning process, the co-joining of work and schooling. Schools were not to be left to be run by educational specialists.

What of education and research under conditions such as these? As with the Soviet example, I suspect that our initial reaction may turn out to be more the product of culture shock than studied response.

In contrast, is Western educational research and study free of philosophical-political influences? Can it be? I would suggest that our presumed neutrality and objectivity have at times become merely a cover for repressive tolerance.

Leo Kamin (1974) has written a devastating critique of the role of the scientific community in supporting racist practices and beliefs. Objective and value free science, presumed by both researchers and the public, led to the widespread acceptance of findings that later proved inappropriate, inaccurate and, in one critical instance, deliberately falsified. These publications, in turn, had profound public policy implications.

Bowles and Gintis (1972) have gone so far as to tie in this "scientific" use of intelligence research to the legitimation of an "authoritarian, heirarchical, stratified and unequal economic system of production and the reconciliation of the individual to his or her objective position within this system." (p. 66)

Whether one adopts a conspiratorial explanation for such "scientific" influences or merely one of the naive observer, the effect is nonetheless real.

What is to be done? First, graduate students as the harbingers of our trade, must learn to recognize and confront the objective reality of

their professional existences. The history and philosophy of science would be essential as would a thorough grounding in sociopolitical theory and issues, past, present and future.

Second, we should consider what benefits we might derive from the Soviet and Chinese emphasis on mutual cooperation, criticism and self-criticism. While each occurs to varying degrees in our universities, there appears to be little that is formal or systematic about how each is condidered or incorporated.

Third, we in the West could benefit from that orientation which insists upon the academician's responsibility for servicing the needs of the people now and in the future, the responsibility of research for guiding the nation towards socially defined goals. While the Western scientific community has proven brilliant at producing technology, even that industrial magnificance appears tarnished when put in the perspective of capitalist motivations and environmental impact. More social, human and philosophical concerns have largely been ignored.

Finally, and quite important for graduate students, are the issues of financial support and employability. Unfortunately, professors without support to offer graduate students are more difficult to work or study with.

While there are no simple or easy answers possible, these are important issues and worthy of consideration. Although science may be, and perhaps should be, value free in its procedures for confirmation, so much else of what science is all about is assuredly not value free, from problem definition to final interpretation. Science should seek to lead and not just observe. To accomplish any or all of this, however, may require fundamental alterations in our basic capitalist orientation, away from an individualized, free enterprise focus and toward a planned collective ethic.

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