The Education of Graduate Students:
A Social Capital Perspective

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Introduction

University administrators and professors typically expect that their academic programs educate students to become mature scholars, which essentially means that students think that ideas are important, they attempt to understand, evaluate, and interpret ideas, they develop reflective writing skills, they speak well, and they ultimately shape their lives on the basis of ideas (Geertsen, 2003; Vedder, 2004; Wegener, 1978). In this respect, Mortimer Adler (1988, pp. 109-110) defines a mature scholar as "a person who has a good mind, well disciplined in its processes of inquiring and judging, knowing and understanding, and well furnished with knowledge, well cultivated by ideas." Of course, the intensity of disciplining the minds of students by having them engage in scholarship, research, writing, and debating distinguishes graduate from undergraduate programs. In terms of Bloom's Taxonomy of Educational Objectives (Bloom & Krathwohl, 1956), graduate programs most often focus on the three higher levels—analysis, synthesis, and evaluation—while assuming that the students already understand their discipline at the three lower levels—knowledge, comprehension, and application.

In this article, I argue for a theory that considers the cognitive and social requirements for graduate students to become mature scholars, mainly in the Arts, Humanities, and Sciences. I do not consider the requirements in the professional faculties, such as Education, Law, and Social Work. In essence, my perspective is normative—the way graduate

education should be orchestrated—and is derived from the theoretical work on "social capital," representing the collective resources that are embedded in the authority relations among students and between students and professors (Coleman, 1988, 1993; Fukuyama, 1995; Putnam, 1995). In short, to facilitate the scholarly development of graduate students, professors and their students must develop social networks based on trust, so that norms, obligations, and expectations for scholarly work are enhanced, information channels are expanded, and the conceptions of both students and professors change from the "I" to the "we" (Nisbet, 1971, p. 112; Vedder, 2004, p. 118). When graduate students and their professors trust and respect each other and when they share norms, obligations, and expectations in relationships that are authoritative, graduate programs are more likely to function effectively and students are more likely to become relatively mature scholars who are integrated into functioning scholarly communities.

What Responsibilities Do Graduate Schools and Professors Have?

In order to facilitate the education of graduate students, graduate schools and professors have three obvious and interrelated responsibilities: selecting, evaluating, and educating graduate students. The selection and evaluation of students are largely the collective responsibility of graduate schools, while the education of students is largely the responsibility of individual professors. Initially, graduate schools must select students who are able and willing to become mature scholars. There is little use spending considerable resources, time, and money, attempting to educate students who are unable to acquire new knowledge or unwilling to change their thinking, attitudes, and behavior (Sowell, 1993, pp. 122-131; Wegener, 1978, p. 146). To a considerable extent, graduate programs already select students on these criteria. High quality programs use a combination of undergraduate grades, standardized examinations (GREs), letters of reference, and interviews to admit students; lower quality programs, of course, use fewer criteria and/or lower standards.

Surprising, recent evidence suggests that only about 50 percent of the students who begin a doctoral program actually graduate (Smallwood, 2004). As such, selecting students who can and will change is a necessary, but not a sufficient condition for their scholarly transformation. Good graduate programs also have their students evaluated on criteria that are set, at least in part, by scholars who are external to the specific program and, perhaps more importantly, by scholars who are not inti-

mate friends with the students' advisors. James Coleman (1993, p. 535) makes this point explicit: "when an external criterion is imposed, effort toward learning begins." The absence of externally evaluated candidacy exams and dissertations puts professors in a conflict of interest of both establishing and attempting to maintain the standards of scholarship (Nisbet, 1971, pp. 30-40). Obviously, external evaluations of programs and examinations decreases the incentives that graduate students have to bargain with professors about the difficulty of the scholarly work that is required to obtain degrees.

In selecting and evaluating students, the responsibilities of graduate schools may seem relatively straightforward, but they are not because universities are loosely coupled institutions where professors have considerable academic freedom in their teaching (see Meyer & Rowan, 1977; Sowell, 1993; Terenzini, 1996; Vedder, 2004; Weick, 1976; Wilms & Zell, 2003). In this respect, Coleman (1973) notes that universities are "organizational anachronisms" because there are few effective ways of sanctioning tenured professors to enforce the ideal norms of good teaching. Nevertheless, graduate schools have the responsibility of enforcing good teaching, and professors cannot have complete freedom in the organization of their courses and the way they teach. Even though it is difficult, the structure of graduate programs must be relatively narrow, which means that the behavior of individual professors must be relatively constrained in the way they teach their courses (see Coleman, 1973; Goldberg, 1996; Huber, 1995; Sowell, 1993, p. 202; Vedder, 2004, p. 116).

Over the years, a number of scholars have advocated for ways of improving graduate teaching (see Feldman, 1998; Perry & Smart, 1997; Weimer, 1990), and in these suggestions there is no debate that scholarship and teaching must be strongly linked for professors who teach in high-quality graduate programs (Sowell, 1993, pp. 223-225). Robert Nisbet (1971, p. 79), for example, notes that: "Research develops with teaching just as teaching develops with research." If graduate students are convinced that their professors are competent both as scholars and teachers, then they are more likely to value the knowledge and skills that they expect students to learn. Moreover, if these scholarly standards are used consistently across courses, even when professors disagree with each other, then graduate students are more likely to value their professors as role models.

At the beginning of each course, good teachers, as role models, need to outline their scholarly expectations for students so that they understand how and why they are required to learn the material, gain new insights, develop new skills, and change their attitudes and behavior (Paglis, Green, & Bauer, 2006). The rationale for each course is initially

presented in the course syllabus as a set of objectives. With such objectives firmly established, professors must structure their courses and seminars to be intellectually demanding for all students. Bredemeier and Bredemeier (1978, p. 168) point out that professors must intellectually challenge their students: "[A] condition for any learning or changing is to be dissatisfied with the present state of affairs. Frustration … is a necessary condition for changing." For this reason, professors need to focus on an appropriate weighting of the higher levels in Bloom's *Taxonomy of Educational Objectives*—analysis, synthesis, and evaluation—in their course syllabi because these objectives will obviously challenge the intellects of graduate students while the objectives at the lower levels—knowledge, comprehension, and application—will not (Bloom & Krathwohl, 1956).

If students are not intellectually challenged to an optimal degree, they are unlikely to learn new material and develop new skills. If professors have demanding requirements for students, then the students will probably change in ways to develop their scholarly potential. If professors do not have demanding requirements, or if their requirements are too demanding, there is little incentive for students to change. In essence, the objectives of a course must not be too high because they will cause undue stress for the students, and they must not be too low because they will be boring and the students will disparage the course as being "Mickey Mouse" (see Clifton, Mandzuk, & Roberts, 1994; Kramer, 1991). In other words, the objectives that professors establish for courses must exceed the students' current level of knowledge, critical thinking, and intellectual performances, but not so advanced that they have little chance of achieving the objectives (Clifton & Roberts, 1993; Geertsen, 2003, p. 3).

Nevertheless, even when graduate courses are intellectually demanding, it is expected that the students will experience frustration—anxiety, fear, and perhaps even anger—as they attempt to acquire new knowledge and skills and adapt their behavior (Bredemeier & Bredemeier, 1978, p. 168). Both students and professors should expect these feelings; so should department heads and deans, but they should not interpret this anxiety as providing evidence of poor teaching. When students experience anxiety and frustration, at least in moderate amounts, they should neither be rewarded nor punished, by professors or administrators for reacting emotionally to the reasonable intellectual demands of graduate courses.

Optimally, course work must be challenging but the objectives must be clear and attainable, and the students need to experience success if they are dedicated to hard work and striving. Professors need to realize that graduate students will experience anxiety, but they must be

empathetic to their students' anxiety without reducing their demands. That is, professors should not reduce their demands as long as they are congruent with the objectives of the course and they increase, within tolerable limits, with the students' developing intellectual competencies, skills, and motivation. Under no circumstances should professors raise their expectations just to make their students angry. Rather, there must be a balance in the requirements professors establish for courses with the students' performances so that their expectations increase, in a lock-step manner, slightly ahead of the increases in the students' performances (Clifton & Roberts, 1993).

Related, the graduate students' effort to act appropriately must be rewarded no matter how hesitant it is at the beginning. Mastery cannot result from the initial attempts at learning something new; mastery is best achieved with persistent practice and dedicated work over relatively long periods of time, which is the scholarly apprenticeship that is necessary for graduate students to become mature scholars. But each time graduate students move closer to mastering new knowledge, developing new skills, and changing their behavior, they should be rewarded by both professors and other students. In developing the concept of social capital, Coleman (1988) notes that "a closed social system" is required where professors, who hold positions of authority, and graduate students, who are respectful and working hard to learn the discipline at the highest levels, provide feedback to each other in a process that develops trust and results in effective collective behavior. When graduate students act in ways that are not congruent with the desired acquisition of knowledge and skills and the desired changes in behavior, the appropriate response, from both professors and administrators, is to insist on the desired changes as a condition for approval. No doubt this is difficult for professors and administrators, but it is also difficult for anxious students who, motivated by perceived grievances, may occasionally find solidarity with peers in opposing their professors' legitimate expectations.

Obviously, the process of effectively teaching graduate students must be enacted so that the students' dignity and self-respect are not threatened. John Rawls (1971, p. 62), specifically, points out that people protect their dignity and self-respect at almost any cost. Thus, when the difficulty of courses comes close to threatening the students' dignity and self-respect, they need considerable social support, from both professors and other students, for the changes they are making. Under demanding circumstances, as many sociologists have noted (see Bredemeier & Bredemeier, 1978, p. 177), social support gives students the collective strength enabling them to perform in extraordinary ways. For this reason, graduate classes are often relatively small, with cohesive groups of

students, giving professors increased opportunities to use cooperative learning, cooperative writing, and publishing joint articles, which are the most effective ways of developing the supportive but demanding expectations for graduate students while having them maintain their dignity and self-respect (see Michaelsen, 1992; Simpson, 1979).

The Aristotelian Principle in Teaching

Rawls (1971, p. 426) calls the conditions that are required to support the self-respect of students "The Aristotelian Principle" because it was first proposed in Aristotle's *Nicomachean Ethics*:

> Other things equal, human beings enjoy the exercise of their realized capacities (their innate or trained abilities), and this enjoyment increases the more the capacity is realized, or the greater its complexity. The intuitive idea here is that human beings take more pleasure in doing something as they become more proficient at it, and of two activities they do equally well, they prefer the one calling on a larger repertoire of more integrate and subtle discriminations.

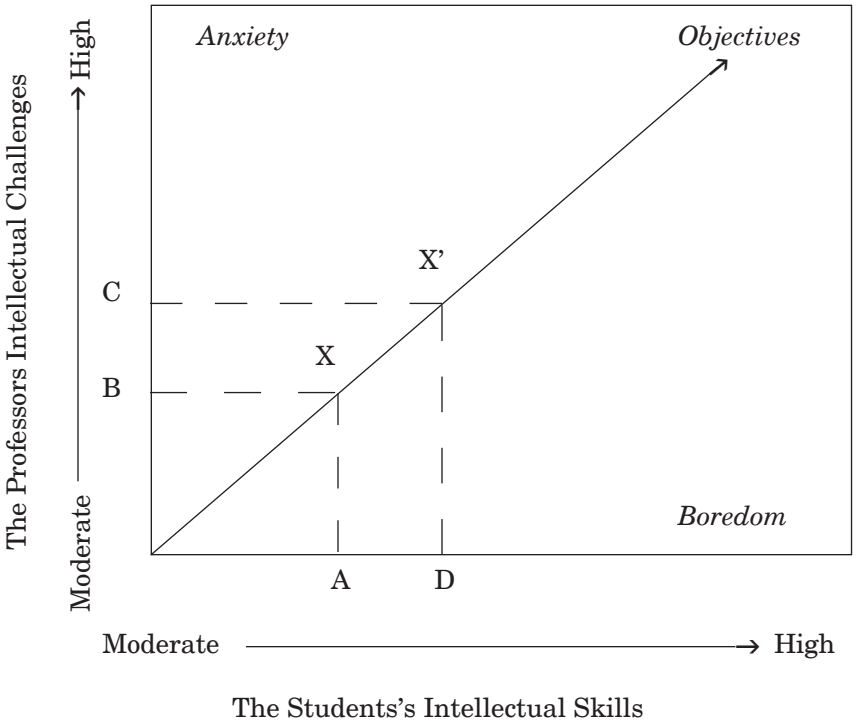
As suggested by Aristotle, three conditions are required for effective teaching to take place so that graduate students maintain their dignity and self-respect. First, the material that they study must be *important*. In other words, graduate students must understand that their educational activities are significant in their discipline and for their own scholarly development. Second, the scholarly activities must be *challenging*. In other words, graduate students must be stretched intellectually without being bruised or broken psychologically. If, on the one hand, the scholarly activities can be easily performed, or if, on the other, the activities are too demanding, the requirements are unlikely to enhance the students' dignity and self-respect. Finally, graduate students must perform their scholarly activities *competently*. Specifically, graduate students must have the requisite ability, skills, and motivation to overcome the challenging expectations set by their professors. In this respect, graduate students must have externally-validated evidence that they are becoming increasingly proficient in performing their scholarly activities. Receiving scholarships, presenting papers at learned meetings, publishing articles in top-ranked journals, and successfully defending dissertations in front of high-quality external examiners are all examples of the externally-validated evidence of competent scholarship.

Figure 1 represents The Aristotelian Principle as a graph where the x-axis is the intellectual skills of a student and the y-axis is the professor's expectation (cf. Csikszentmihalyi, 1997). In this case, it is assumed that an empathetic professor is teaching only one graduate

student who understands, and accepts, the importance of the course she is taking. Given this assumption, both axes begin at moderate levels and progress to a high level because this student has already experienced low to moderate challenges in the undergraduate program, and as a consequence, has attained a moderate level of intellectual skills in the discipline. In terms of Bloom's Taxonomy, this student is already familiar with the major arguments in the discipline at the knowledge, comprehension, and application—the lower levels—but she cannot yet adequately analyze, synthesize, or evaluate the arguments, theories, and research at the higher levels, those that are expected of mature scholars (Bloom & Krathwohl, 1956).

The diagonal arrow, from the bottom left to the top right, represents the progression towards the course objectives that the professor expects the student to make during the course. *Anxiety* is printed at the top left and *boredom* is printed at the bottom right indicating that when the professor sets course objectives that are far beyond the student's intel-

Figure 1
The Aristotelian Principle Applied to Graduate Teaching



lectual skills, the result is likely to be anxiety, and when the professor sets course objectives that are far below the intellectual skills, the result is likely to be boredom. In both of these extreme situations, of course, the student is treated with disrespect and her dignity is threatened. As such, the diagonal line represents the balance between anxiety, on the one hand, and boredom, on the other, that an empathetic, but demanding, professor establishes for one particular graduate student. When the professor sets challenges, within reason, above the level of the student's intellectual skills, the student strives to perform at that level, developing the necessary intellectual skills and, with hard work and dedication, she meets the expected objectives.

Now, assume that the student's performance in this graduate course is indicated by X which is a balance between the intellectual skills, A, and the challenges set by the professor's objectives, B. Because the student is comfortable, not being overly anxious or overly bored, the professor sets higher challenges, C, increasing the student's anxiety moderately, causing her to strive and increase the intellectual skills to D, resulting in performing at a new and more complex level, X'. For this particular student, the distance between B and C is a moderate challenge, while it may be either too small or too large for other students. By improving this particular student's performance from A to D, the student works hard to learn more complex material in the discipline, improves the intellectual skills, and as a result, both her dignity and self-respect are enhanced. The student has dignity in the work she is doing; she has the respect of the professor and other students and other professors; she has self-respect because the work is high-quality; and she is well on the way to becoming a mature scholar.

This graph is, of course, a heuristic model to illustrate a process that is much more complicated. Graduate students are likely to vary on their tolerance for anxiety and boredom; some students will expect seminars to be conducted so that they can make small incremental steps while others will expect to make larger steps with more intellectually challenging material. In courses where there is great variability between students, obviously some of them are likely to be very anxious while others are likely to be very bored, resulting in a difficult situation for both students and professors. Once again, the reason for having empathetic professors teach relatively small graduate classes is so they can realistically assess the levels of anxiety and boredom in each student, and they can realistically adjust their expectations to the challenges, anxiety and boredom, that each student is experiencing.

Conclusion

It may be relatively easy to teach one student, as this example suggests, but it is relatively difficult to provide an optimal combination of both intellectual challenge and empathy for large classes of diverse graduate students. Consequently, in these classes some students are likely to be very bored while others are likely to be highly anxious. Nevertheless, if empathetic and demanding conditions are established, authoritative and respectful professors and able graduate students are more likely to develop networks of interaction, based on trust, that support norms, obligations, and expectations for high-quality scholarly work (Coleman, 1988, 1993; Fukuyama, 1995; Putnam, 1995). In other words, professors will be good role models for their graduate students, which are necessary of course, to ensure that students maintain their dignity and self-respect while, over the long period of time they spend in graduate school, becoming relatively mature scholars producing good-quality scholarly work, and becoming well-integrated into scholarly communities.

Graduate schools are, of course, the most important organizational arrangement in the education of graduate students, while individual professors are the most important teachers or role models (Paglis, Green, & Bauer, 2006). Because a number of studies have shown that only about 50 percent of students who enroll in a doctoral program actually graduate (Smallwood, 2004), it is necessary to improve graduate education by aligning the organizational structure and the inter-personal interaction that graduate students encounter so that social capital is developed (Coleman, 1988, 1993; Fukuyama, 1995; Putnam, 1995). This may seem relatively simple, but it is not because universities are generally loosely coupled institutions where professors have considerable freedom in the way they organizing programs and the way they teach and supervise students.

In order to improve, graduate programs must be much more cohesive than is typically the case at the present time. Specifically, the academic standards in good graduate programs must be clearly established, curriculum must be tightly integrated, and courses must be rigorous (Huber, 1995, p. 206). When these conditions have been established, and when professors collaborate, graduate schools must select students who are truly able and willing to become mature scholars. After they have been admitted, graduate schools must have their students educated by good scholars and teachers who effectively prepare them to be evaluated on criteria that are set by scholars who are external to their program. Without clearly delineated external evaluation, professors, as noted previously, are in a conflict of interest of both establishing and attempting to maintain the standards of scholarship. As the process progresses, graduate

professors must anticipate that their students will ultimately supersede them in developing greater understanding than they themselves have developed. Good programs and professors realize that graduate students must never be limited by their mentors' abilities, skills, and interests. In this way, a new generation of scholars and professors will be educated who will eventually take over the responsibilities of educating the next generation of graduate students.

Obviously this argument is normative suggesting ways that graduate schools, and specifically professors, can become more effective in creating and using social capital, the joint cognitive and social resources that they and their students' control, to educated graduate students to become relatively mature scholars within empathetic but demanding authority relationships (Coleman, 1988, 1993; Fukuyama, 1995; Putnam, 1995). In the future, the strengthening of graduate programs will likely become more important as universities are increasingly forced to account for the social and human resources they receive (Terenzini, 1996; Vedder, 2004; Wilms & Zell, 2003). As well, in the future, universities are more likely to become discerning in funding good graduate programs and discontinuing weak programs, while good students are more likely to become more discerning about the programs in which they enroll (Goldberg, 1996; Huber, 1995; Sowell, 1993; Vedder, 2004).

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