

EDUCATING LONE WOLVES: PEDAGOGICAL IMPLICATIONS OF HUMAN CAPITAL THEORY

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There may be adult educators who wish to alleviate social inequalities but whose practices are wedded to human capital theory. In this article, it is argued that educational practices based wholly or partly on human capital theory are unlikely to alleviate social inequities because the theory spawns pedagogical practices that are apolitical, adaptive, and individualistic. By alerting adult educators of the ominous pedagogical implications of human capital theory, it is hoped that they will distance themselves from it and embrace more socially responsible alternatives.

People who choose adult education as a vocation (Collins, 1991) do so in part because they want to alleviate social maladies such as poverty, income inequality, poor health, environmental pollution, and unsafe habitats. Their commitments are expressed in different ways and in various arenas. Some focus their energies on formal education, others in the workplace. Some channel their resources and expertise to individuals and families, others to communities and the broader society. Regardless of the arena, I believe that every educational practice is profoundly influenced by theories of human and social behavior, whether such influence is witting or unwitting. Furthermore, I assume that some theories are better able to explain and address social maladies than others. In fact, I believe that some theories are so flawed that they are likely to exacerbate rather than alleviate social ills. In this article, I examine one such theory: human capital theory. I hope to alert its unwitting loyalists of the theory's malignant force and point the way to more civically responsible practices.

The article is organized as follows: I begin with an overview of human capital theory, tracing its origins, early development, and chronological applications in national educational policies. Next, I analyze some of the theory's assumptions regarding human and social behavior. Then, after summarizing the theory, I use my



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ADULT EDUCATION QUARTERLY, Vol. 51 No. 3, May 2001 184-201
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previous analysis to draw out some of its ominous pedagogical implications. I conclude with suggestions on how adult educators might work to discredit the theory and concomitantly help promote more socially responsible alternatives.

OVERVIEW OF HUMAN CAPITAL THEORY

Definition and Origins

The term *human capital* refers to knowledge, attitudes, and skills that are developed and valued primarily for their economically productive potential. It “refers to the productive capacities of human beings as income-producing agents in an economy” (Hornbeck & Salamon, 1991, p. 3) and to “the present value of past investments in the skills of people” (Blaug, 1970, p. 19). *Human capital formation* is the name given to the process by which such capital is deliberately developed, and the expenditure (in time, money, etc.) is called *human capital investment* (Becker, 1962, p. 9).

The 18th-century economist Adam Smith introduced the notion of humans as capital in his classic *Wealth of Nations* (Smith, 1776/1937). Others, such as Alfred Marshall (1890/1930) and Irvin Fisher (1906), kept the idea alive (Walsh, 1935). Notwithstanding its long history, the theory of humans as capital remained relatively undeveloped well into the 20th century.

For much of the ensuing two hundred years [after the publication of *Wealth of Nations*], economic thought largely ignored Smith’s insights, and focused instead on the role of land, capital stock, and hours of labor as the crucial ingredients in economic growth. (Hornbeck & Salamon, 1991, p. 3)

Walsh (1935) noted that prior to the mid-1900s, discussions about humans as capital were carried on “chiefly in general terms; references being made to *all men [sic]* as capital, and to *all* kinds of expenses in rearing and training as [investment]” (p. 255).

There are several reasons given for the delay in formulating a theory of humans as capital. One is the differences of opinion among early theorists regarding the relationship between humans, labor, capital, and earnings. Three camps seem to have emerged. The first (represented by John Stuart Mill and Alfred Marshall) distinguished between the acquired capacities (skills and knowledge) of human beings, which are classed as capital, and human beings themselves. Having a deep-seated moral and philosophical commitment to human freedom and dignity, this group found the mere thought of humans as capital rather offensive. To them, humans were the purpose for which wealth and capital existed: the end to be served by economic endeavor. Marshall, for instance, argued that although it is quite possible and ethical for people to sell their labor, there ought not to be a market in human beings. It should be noted, however, that despite this objection, Marshall’s

(1890/1930) *Principles of Economics* includes in an appendix a methodology for calculating the private returns on investment in education that, according to Marginson (1993, pp. 33-34), would later become the core of the theory (Schultz, 1961).

A second camp (represented by Adam Smith, Irving Fisher, and the Chicago School) argued that human beings are themselves capital, that the notion of humans as capital is not incompatible with freedom and dignity, and that to the contrary, by investing in themselves, people enlarge the range of choices available to them and so enhance rather than limit their freedom (Schultz, 1961). This group tied earnings to educational expense (capital investment), not just to productivity. Adam Smith (1776/1937), for instance, argued that “a man educated at the expense of much labor . . . may be compared to one . . . expensive machine. . . . The work which he learns to perform . . . over and above the wages of common labor will replace the whole expense of his education” (p. 101). To Smith, then, variations in educational investments (human capital) explained and justified variations in earnings.

Karl Marx represents the third camp. Like Adam Smith (1776/1937), he agreed that greater productivity alone does not account for the higher earnings of educated workers but that the cost of education (investment) also enters into the equation (Marx, 1867/1976). And, like Mill (1859/1956), Marx concurred that workers sell their capacities to labor (their “labor power”) rather than themselves. However, Marx argued that the capacity to labor itself is not a form of capital but that a worker’s labor power becomes capital only when it is used in the process of production (Marx, 1867/1976, 1894/1981). Thus, contended Marginson (1993, p. 34), Marxist economics diverged from what was to become human capital theory.

A second reason given for the delay in formulating a theory of humans as capital is the widespread use of the Keynesian definition of consumption and investment. According to Blaug (1970), Keynes viewed consumption and investment as mutually exclusive categories: expenditures of two different sectors of the economy, households and businesses, respectively. Keynes regarded education as largely a household expenditure and therefore treated it as pure consumption with no investment component. Consequently, as long as Keynesian economics reigned, the investment component of education remained hidden from view (Blaug, 1970, pp. 16-22).

A third reason given for the delay is the nature of economic production prior to World War II. Briggs (1987) contended that prior to World War II, agricultural and industrial economies did not require large numbers of highly skilled workers, and as such, there was little need for a theory of human capital. But, Briggs argued, the high-technology economies that emerged in the post-World War II era required massive doses of highly skilled workers. And this technological advancement, he believed, provided the grounds for building a theory of human capital (Briggs, 1987, pp. 1201-1210).

Inauguration of the Human Capital Revolution

The articulation of a formal theory of human capital began in the mid-20th century with what has been dubbed the Chicago School (Ali, 1985; Psacharopoulos, 1988; Sobel, 1978; Walters & Rubinson, 1983). Milton Friedman (1962) “signaled the interest of the Chicago school economists in a human capital theory approach” (Marginson, 1993, p. 36). What Friedman (1962) planted, Theodore Schultz watered. In his presidential address at the Seventy-Third Annual Meeting of the American Economic Association on December 28, 1960, Schultz (1961) delivered what is generally considered the inauguration of “the human investment revolution in economic thought” (Sobel, 1978, p. 268, Footnote 2). In that address, Schultz (1961) argued that much of what is commonly labeled *consumption* is really human capital investment. This investment, he stated, includes direct expenditure on education, health, and internal migration; earnings foregone by mature students attending school and by workers acquiring on-the-job training; the use of leisure to improve skills and knowledge; and so on—all of which constitute measures aimed at improving the quality of human effort and, ultimately, workers’ productivity. Schultz (1961) wrote, “Although it is obvious that people acquire useful skills and knowledge, it is not so obvious that these skills and knowledge are a form of capital, [or] that this capital is in substantial part a product of deliberate investment” (p. 1). He called the body of knowledge that sought to describe, explain, and validate this phenomenon “human capital theory” (Schultz, 1989, p. 219).

Application of Human Capital Theory to National Educational Policy

Since its ascendancy in the 1960s, there have been three discernable phases of human capital theory’s application in national educational policy (Marginson, 1993, p. 40). The first stressed public investment in human capital and was dominated by ambitious claims about the positive and vital link between education and economic growth (Denison, 1962; Schultz, 1959, 1960, 1961). For most developing countries, however, the promised economic boom did not materialize. The failure of the public investment approach to deliver the goods led to a period of eclipse during which alternative theories such as the screening hypothesis took center stage (Arrow, 1973; Marginson, 1993, pp. 43-44; Thurow, 1974). According to Marginson (1993),

the screening hypothesis focuses on the exchange value of educational qualifications (credentials), rather than the cognitive attributes of the educated worker. The screening theorists see education’s fundamental role as that of a selection system for employers. The content of education has little relevance to worker performance or wage levels. Rather, educational credentials act as a surrogate for qualities that employers want, such as willingness and the capacity to learn. (p. 44)

By the mid-1980s, human capital theorists began to flex their muscles once more, this time riding on the wave of structural adjustment policies (Organization for Economic Co-operation and Development [OECD], 1987). But, the 1980s incarnation was different from its 1960s precursor in several important ways, one being the mediating effect of technology. Anticipating this mediating effect, Schultz (1975) wrote,

Very rapid modernization of U.S. agriculture following World War II has more than halved the number of farms; in the ensuing competition to survive and remain in agriculture, the effects of education on the ability to cope with changes in agricultural production are strongly positive in determining who has been able to survive. (p. 836)

Wozniak (1984) agreed with Schultz (1975), arguing that education renders productive services by providing the opportunity to improve allocation decision making and by augmenting individuals' capacities to think systematically and creatively about techniques. This augmentation, Wozniak (1984) believed, enables individuals to use their rational faculties in the process to consciously modify their environment: "By augmenting the ability to learn and the capacity to adjust to disequilibria, education helps workers meet the creativity and flexibility of an advancing technology" (p. 71). To such views the powerful OECD (1987) affixed its stamp of approval: "The development of contemporary economies depends crucially on the knowledge, skills, and attitudes of their workers—in short on human capital. In many respects, human capital has become even more important in recent years" (p. 69).

The human capital theory that the OECD endorsed, however, is markedly different from the 1960s version. The OECD found the earlier version too general, too quantitative, and based on too simplistic theories of education and the economy. Like Schultz (1975) and Wozniak (1984), the OECD argued that education is not the only factor in determining income, as the earlier variant implied, but that the relationship is especially mediated by available technology. Furthermore, the OECD incorporated elements of the screening hypothesis into its revised model. Unlike its earlier framers, the OECD contended that education and training perform important screening functions that are likely to positively affect worker productivity regardless of whether or not the training provides specific, job-related skills. The key, according to the OECD, appears to be the ability of workers to cope with technological changes and to turn them into advantages in the future. The OECD believed that education, through its screening function, streamlines the available pool of flexible and adaptable workers and consequently enhances the efficiency of both the recruitment and production processes (Marginson, 1993; Organization for Economic Co-operation and Development, 1985, 1986a, 1986b, 1986c).

Who should bear the cost of this education? Each individual. According to the OECD (1990), those who make higher investment will be rewarded with "higher

earnings, and therefore there is no obvious reason why the rest of the community should be expected to meet their study costs” (Marginson, 1993 p. 49). This, insisted the OECD, is one reason why students should pay for their own studies and why support for them should be in the form of loans rather than grants or scholarships.

To summarize, the contemporary version of human capital theory differs from its predecessors in three important respects: (a) it incorporates technology as a factor that mediates the relationship between human capital and productivity, (b) it integrates elements of the screening hypothesis, and (c) it advocates private over public investment in education.

OUTCOME, PROCESS, AND HUMAN ASSUMPTIONS OF HUMAN CAPITAL THEORY

An examination of the basic assumptions of human capital theory is crucial to elucidating those practices it might promote. Let us therefore scrutinize some of those assumptions. I begin with the more obvious outcome assumptions: those concerning the relationship between human capital (education) and economic performance. Then, I move deeper into process assumptions: those concerning the nature of economic behavior. Finally, I examine assumptions about the nature of persons who are supposed to promote those economic behaviors.

On Human Capital and Economic Performance

I wish to focus on two outcome assumptions of human capital theory: first, that there is an unqualified, causal effect of human capital on economic productivity, and second, that differences in workers’ earnings are due entirely to differences in their human capital investments. The first assumption asserts that for any given economic enterprise, regardless of what is being produced and of where, how, and under what conditions it is being produced, more educated workers will always be more productive than their less educated counterparts. On this matter, Schultz (1989) made the unqualified declaration that “human capital enhances the productivity of both labor and physical capital. People at each skill level are more productive in a high human capital environment than in one that is low in human capital” (p. 220; cf. Schultz, 1961, pp. 4-7). Ali (1985) agreed, making the unconditional claim that adult literacy

raises output per worker or labor productivity by providing necessary skills to manpower, facilitating innovations and enhancing geographic and occupational mobility of labor. Viewed in this perspective, expenditure on education [adult literacy] amounts in effect to investment in human resources that raises the quality of people as productive agents. (p. 42)

The production function Ali (1985, pp. 44-47) used to estimate the rate of returns on adult literacy includes measures of physical capital, marginal productivity of labor, level of adult literacy, a scalar for technological know-how, and dummy variables representing a country's overall level of economic development.

Schultz (1989) and Ali (1985) were not merely claiming that more education is the cause of higher productivity. They were also asserting that this relationship is unqualified. Neither author discussed or construed situations in which education might decrease (or at least not increase) productivity. As Ali's (1985) production function reveals, human capital theorists acknowledge mediating factors. But, this acknowledgment does not seem to change their utopian view of education. For instance, regarding the mediating effects of technology, human capital theorists assume that more educated workers are always more technologically savvy than their less educated counterparts and that their superior technological savvy renders them always more productive than their less educated peers. In short, human capital theorists do not envisage situations in which less educated workers might enjoy a productive advantage over their more educated peers.

A second outcome assumption of human capital theory is that differences in workers' earnings are due entirely to differences in their human capital investments. This assumption flows directly from Adam Smith, who, as was pointed out earlier, believed that variations in human capital investment explain and justify variations in earnings (Psacharopoulos, 1988, p. 99; Smith, 1776/1937, p. 101). To human capital theorists, then, all income differences are based on merit not favor.

Gary Becker, a member of the Chicago School and a recipient of a Nobel Prize in Economics for his work on human capital theory, exemplifies this belief in educational meritocracy. He attributed observed income disparities between ethnic groups in the United States solely to disparities in human capital investment:

Differences [in human capital investment] among ethnic groups in the United States are fascinating. Groups with small families generally spend a lot on each child's education and training, while those with big families spend much less. Japanese, Chinese, Jews and Cuban families have less children who become well educated, while Mexicans, Puerto Ricans, and blacks have big families and the education of their children suffers. (Becker, 1992, p. 11)

Becker (1992) went on to argue that this differential investment alone explains the income disparities that exist between ethnic groups in the United States. Cubans, he asserted, place greater value on economic mobility than Blacks, and because of that, they invest more in human capital than Blacks. He contended that this differential investment alone (generated, presumably, by differential preferences¹) explains the differential earnings of the two ethnic groups. He drew basically the same conclusion when he examined income disparities existing along lines of gender and social class (see Becker, 1985; Becker & Tomes, 1986). To human capital theorists, then, educational investment is a surefire route to socioeconomic mobility. With adequate educational investment, nothing can hinder one's socioeco-

conomic progress. Those who invest bountifully in education will always reap bountiful socioeconomic rewards; those who invest stingily will reap sparingly. Why is educational investment able to deliver such a utopia? Ostensibly, the answer lies in the nature of human beings themselves, and in the nature of economic behavior they foster. Let us look first at the nature of economic behavior.

On the Nature of Economic Behavior

In terms of giving direction to economic pursuit, Becker (1976) argued that definitions are futile. To distinguish and provide direction to economic enterprise, what is needed, he insisted, is an economic approach (Becker, 1976, pp. 3-4). To him, that approach rests on three pillars: maximizing behavior, market equilibrium, and stable preferences. These three pillars, "used relentlessly and unflinchingly, form the heart of the economic approach" (Becker, 1976, p. 5). The first pillar, maximizing behavior (also referred to as utility maximization), is a subset of rational choice theory, which, according to Jerome Bruner (1990), has its origin in the works of Adam Smith. The theory assumes that human beings only engage in behaviors from which they derive the maximum benefit (Bruner, 1990, p. 28). As utility-maximizing individuals, humans are incapable of engaging in activities other than those that maximize their benefits. The utility maximization argument goes like this: Why does Mary behave in such and such a way? Because she wishes to maximize her benefits. Why would Mary always act to maximize her benefits? Because her human nature compels her to do so. Becker (1976) treated utility maximization as an axiom. Matter-of-factly, he decreed that "everyone recognizes that the economic approach assumes maximizing behavior . . . be it the utility or wealth function of household, firm, union, or government bureau that is maximized" (Becker, 1976, p. 5). To him, nothing more needed to be said on the matter.

Human capital theory recognizes only two legitimate social entities: the utility-maximizing individual and the free market. I discuss the individual in the next section; here, I focus on the free market. Market equilibrium, the second pillar of Becker's (1976) economic approach, rests on the assumption of perfectly competitive, free markets. Markets are arenas in which goods and services are produced and distributed entirely on the basis of supply, demand, and price. The market is ubiquitous and all pervasive, determining, legitimizing, and regulating every aspect of human life and social behavior. All social institutions and phenomena, including governments, families, schools, divorce, marriage, discrimination², crime, and so on, are interpreted as markets because, ostensibly and ultimately, they all surrender to market forces and obey the law of utility maximization (Becker, 1976, pp. 9-11, chaps. 2-4). The regulatory forces of the market, operating in concert with people's utility-maximizing nature, ensure that everyone receives mutual and just recompense for their efforts and investments. In support of this view, Becker (1976) argued that

the economic approach assumes the existence of markets that . . . coordinate the actions of different participants—individuals, firms, even nations—so that their behavior becomes mutually consistent. . . . Prices and other market instruments allocate the scarce resources within a society and thereby constrain the desires of participants and coordinate their actions. In the economic approach these instruments perform most, if not all, of the functions assigned to “structure” in sociological theories. (p. 5)

According to Becker (1976), cost-benefit analysis is the invisible mechanism by which the market coordinates social behavior. Although market information is incomplete and unevenly distributed, that fact does not weaken its regulatory power. This is a very crucial point. Applying this cost-benefit analysis to smoking habits, for instance, Becker argued that people continue to smoke even in the face of lethal health risks, not “because they are ignorant of the consequences or ‘incapable’ of using the information they possess, but because the life-span forfeited is not worth the cost to them of quitting smoking” (p. 10). To Becker, then, rational economic choice, not ignorance or incapacity, explains nicotine addiction; people remain addicts because they want to, and they want to because addiction constitutes a net benefit to them.

The third pillar of the economic approach is the assumption of stable preferences: that people’s desires do not “change substantially over time, nor are they very different between wealthy and poor persons, or even between persons in different societies and cultures” (Becker, 1976, p. 5). Preferences do not refer to actual “market goods and services, like oranges, automobiles, or medical care, but to underlying objects of choice that are produced by each household using market goods and services, their own time, and other inputs” (Becker, 1976, p. 5). The underlying objects of choice of which Becker spoke are the “fundamental aspects of life, such as health, prestige, sensual pleasure, benevolence or envy” (p. 5). Becker’s assertion of stable preferences assumes, then, that the desire for health, prestige, pleasure, and so on is present and equally potent in all human beings. What differs are the ways they choose to fulfill those desires. This assumption of stable preferences, Becker argued, “provides a stable foundation for generating predictions” about social behavior “and prevents the analyst from succumbing to the temptation of simply postulating the required shift in preferences to ‘explain’ all apparent contradictions to his predictions” (p. 5).

On Human Nature

The educational utopia described above has its origin in 17th-century English liberalism (Hobbes, 1651/1968; Locke, 1947; Maglen, 1990; Marginson, 1993). The 17th-century English liberal was a radically isolated, pleasure-seeking materialist. Commenting on the material nature of humans, Hobbes (1651/1968) quipped rhetorically,

Why may we not say that all *Automata* (Engines that move themselves by springs and wheels as does a watch) have an artificial life? For what is the *Heart*, but a *Spring*; and the *Nerves*, but so many *Strings*; and the *Joynts*, but so many *Wheeles*, giving motion to the whole Body? (p. 81)

To Hobbes (1651/1968), then, just as the movement of an engine does not confer on it any special kind of existence beyond ordinary matter, so too the motions of humans (however intricate) do not confer on us any unique, metaphysical characteristics. Robert Dahl (1965), one of America's most celebrated political theorists, echoed well this materialistic sentiment:

Man is not by instinct a reasonable, reasoning civic-minded being. Many of his most impervious desires and the source of many of his most powerful gratifications can be traced to ancient and persistent biological and physiological drives, needs and wants. Organized political life arrived late in man's evolution; man [had to learn] how to behave as political man. (p. 60)

As far as Dahl (1965) was concerned, humans live primarily to satisfy their biological urges. Social and political organizations are merely means toward those ends. Humans' materiality sentences them to a mere sensory existence so that their every action is governed, ultimately, by their biological drives. Accordingly, they engage in relationships (economic and otherwise) only because of the material happiness and bodily security such relationships promise.

The 17th-century liberal was also by nature a solitary atom, born free of social restraints or responsibility. On this matter, Locke (1947) proclaimed that "men are . . . by nature, all free, equal and independent" (p. 123). He elaborated,

To understand political power aright . . . we must consider what estate all men are naturally in, and that is, a state of perfect freedom to order their actions, and to dispose of their possessions and persons as they think fit, within the bounds of the law of Nature, without asking leave or depending upon the will of any other man. (p. 76)

This radical isolation (also known as absolutely autonomy) is indispensable to a stable civil society, Locke (1947) contended, for without it, real consent is not possible. And, without real consent, civil society could only be sustained by coercion, making it very fragile and impermanent (Locke, 1947, chap. 8). Radically isolated, materialists are *homo economica*: solitary seekers of material happiness and bodily security. Hobbes (1651/1968) summed up the ascetic, hedonistic condition of humans this way: "The life of man [is] solitary, poore, nasty, brutish"³ (p. 186). But, although less brutish, Lockean individuals are no less selfish. Like Hobbesian individuals, what propels Lockean men and women into society is not any intrinsic sociability but rather their need to secure and optimize their property (Locke, 1947, p. 139; cf. pp. 71-74). So, whereas in Hobbes's (1651/1968) state of nature, men and

women are viewed as avaricious, wild beasts, constantly fighting and devouring one another over limited booty, in Locke's (1947) state of nature, they are conceived as rational animals who, although no less selfish, are able to temper their avarice with economic rationality.

Self-preservation is, logically and naturally, the most fundamental right and deepest desire of brute beasts. Hobbes (1651/1968) reminded us that "the right of nature . . . is the liberty each man has, to use his own power, as he will himself, for the preservation of his own nature; that is to say his own life" (p. 189). Locke (1947) agreed:

Man being born . . . to perfect freedom and an uncontrolled enjoyment of all the rights and privileges of the law of Nature . . . has by nature a [fundamental right] to preserve his property—that is, his life, liberty, and estate against the injuries and attempts of other men. (p. 117)

Given their solitary, hedonistic nature, what prevents people from devouring one another and civil society from degenerating into a perpetual state of war? Economic rationality: those human behaviors that are fueled by fear of death and the desire for material safety and happiness (which accounts for all human behaviors). Hobbes (1651/1968) explained, "The Passions that incline men to Peace, are Feare of Death; Desire of such things as are necessary to commodious living; and a Hope by their industry to obtain them" (p. 188). Locke (1947) agreed:

If man in the state of Nature is so free . . . if he be absolute lord of his own person and possessions, equal to the greatest and subject to nobody, why will he part with his freedom . . . and subject himself to the dominion and control of any other power? (p. 138)

To this question, Locke (1947) replied,

though in the state of Nature he has such a right, yet the enjoyment of it is very uncertain and constantly exposed to the invasion of others; for all being kings as much as he, every man his equal, and the greater part no strict observers of equity and justice, the enjoyment of the property he has in this state is very unsafe, very insecure. This makes him willing to quit this condition which, however free, is full of fear and continual dangers; and it is not without reason that he seeks out and is willing to join with others . . . for the mutual preservation of their lives, liberty and estate which I call by the general name—property. (p. 139)

Becker (1976) echoed this 17th-century economic rationality in his opposition to all nonmaterial explanations of human behavior. "Obviously," he contended, "the laws of mathematics, chemistry, physics, and biology have a tremendous influence on [human] behavior" (Becker, 1976, p. 13). But, Becker (1976, pp. 12-13) accorded no explanatory potential to such nonmaterial notions as social responsibility, ignorance, irrationality, values, customs, traditions, social norms, ego, or id. Reminiscent of Skinnerian Behaviorism (Skinner, 1971), Becker (1976) considered

these notions relics of a prescientific era that must be expunged from the lexicon if people are to make economic progress.

There are substantial critiques of human capital theory. Some expose its empirical and theoretical flaws. For instance, critics have cited the theory's overly mechanistic, one-dimensional view of human beings; its narrow understanding of labor; its use of correlational data to establish cause; the inconclusiveness of its empirical evidence; and the insurmountable methodological hurdles associated with calculating returns on educational investment. Among these hurdles are the difficulties of separating educational consumption from investment, of determining the stock of educational capital, and of ascertaining the marginal productivity of education (Barber, 1984; Beckford, 1972; Blaug, 1972, 1976; Bowles & Gintis, 1975; Gintis, 1971; Maglen, 1990; Shaffer, 1961; Thurow, 1982). Other critics have examined the theory's ominous societal impact, for instance, its exacerbation of social inequalities, its development of underdevelopment, "scholarization," and its blaming of the victims (Berg, 1970; Blaug, 1970; Bluestone, 1977; Carnoy, 1977; Frank, 1984, 1989; Marginson, 1993; Paci, 1977; Samoff, 1994; Thurow, 1977, 1983). To these criticisms I add some insights on possible negative impacts the theory might have on day-to-day pedagogical practices. I do so by drawing inferences from my interpretation of the theory. Readers are encouraged to test those inferences on the basis of their own experiences. To help me draw out those inferences, I now provide a summary of the theory.

HUMAN CAPITAL THEORY: A SUMMARY AND PEDAGOGICAL IMPLICATIONS

Human capital theorists treat people as *homo economica*: radically isolated, pleasure-seeking materialists who are born free of social constraints or responsibility, who possess no intrinsic sociability, and who are driven, ultimately, by the desire for material happiness and bodily security. They assume that these desires are fundamentally the same for all people across space and time (stable preferences), and they believe that each individual will at all times attempt to maximally fulfill those hedonistic desires (maximizing behavior).

Proponents of human capital theory assume that our world is an educational meritocracy in which a person's socioeconomic status is limited, presumably, only by his or her educational investment: More educated people are always more productive than less educated people, and this differential productivity is sufficient to explain all social inequities. Furthermore, human capital theorists construe social inequalities not as injustices, the result of exploitation and oppression, but rather as the natural and inevitable outcomes of a competitive, free market. To them, the free market is the most (if not the only) legitimate social institution; that is, it is the only institution that can adequately and justly govern, regulate, and explain human behaviors and achievements. Like Gary Becker (1976, pp. 7, 12-13), human capital theorists believe that there is no need to appeal to nonmarket forces such as unequal

power or structural barriers to explain human and social behavior. They are certain that the invisible hand of the free market—the coordinated forces of price, supply, and demand—is well able to account for “most, if not all, of the functions assigned to ‘structure’ in sociological theories” (Becker, 1976, p. 5).

Educating Lone Wolves: Pedagogical Implications of Human Capital Theory

The individuals described in human capital theory bear a striking resemblance to lone wolves. In North American mythology, the lone ranger is depicted as the quintessential rugged individual. He is self-sufficient and totally free, requiring nothing of anyone and indebted to no one. He is industrious and shrewd, a law unto himself. But, he is not greedy or selfish. He embodies benevolence and fairness. The lone wolf is also depicted as a rugged individual: self-sufficient, totally free, shrewd, and industrious. But, unlike the lone ranger, the lone wolf is portrayed as a selfish, avaricious beast. Like Hobbesian individuals, lone wolves seek only to maximize their material happiness and bodily security. And, like Lockean individuals, lone wolves enter into packs (market relations) not because of any intrinsic sociability but to secure and preserve their property. Lone wolves are different from lone rangers in another important respect: Their actions are instinctual and adaptive, not intentional or creative. Lone rangers are depicted as intentional and creative beings possessing foresight and the ability to plan and transform their environments. Lone wolves, on the other hand, are portrayed as mere creatures of habit who, operating solely on instincts and biological urges, can only react and adapt to their environs.

What kind of education would best suit lone wolves? In what type of pedagogical environment are they likely to thrive? First, the proper education of lone wolves would be apolitical in its orientation. Educational objectives and activities would be determined by “market analysis” and by technical considerations commonly referred to as “needs assessments” rather than by any ethical or moral philosophy of the educator or program. Consensus would be assumed a priori, not sought through political struggle. All of the needs of all learners would be considered worthwhile and complementary. Little or no attempt would be made to interrogate learners’ needs, to question their appropriateness, to ascertain how they are formulated, or to determine whose interests are best and least served. The fulfillment of each learner’s needs would be assumed to have no negative bearing on the fulfillment of the needs of other learners. This technical, apolitical practice flows directly from Becker’s (1976, p. 5) notions of mutual consistency and stable preferences: People’s absolute materiality begets mutual consistency and stable preferences, and stable preferences beget entirely commensurable and complementary desires. When educational programs justify their goals and activities by simply appealing to the “needs of learners,” when they treat learners’ desires as entirely complementary, and when they ignore or discount serious conflicts of interest between learners

and other stakeholders, one can be fairly sure that they are operating (wittingly or unwittingly) under assumptions of human capital theory.

Second, the proper education of lone wolves must be adaptive. However industrious, lone wolves are still mechanical beings, and as such they can be only spectators in the universe. Their existence is foreordained, predestined—fated! Given their fated existence, it would be superfluous and wishful to treat lone wolves as transforming agents. Prudent educational change must therefore be adaptive, focused on accustoming wolves to their new environs, be they physical, social, or technological. For example, an adaptive adult education program might try to alleviate poverty by attempting to change the behavior of the poor while ignoring the social, political, and economic conditions that help to maintain poverty, or an adaptive program might tackle welfare dependency by attempting to change the behavior of women on welfare while ignoring the social impediments that help to create and sustain that dependency. With adaptive pedagogical practices, then, learners are expected to inculcate behaviors considered essential to the proper functioning of their environs. One might say that learners are educational consumers. And, as customers, they do not—indeed, cannot—produce or create knowledge. Their educational options are either “take what is being offered, or leave it.” When educational programs justify their goals and activities by appealing to inexorable forces such as economic cycles, demographic changes, global competition, knowledge economy, or skills employers need and when they treat learners as fated beings whose only options are to consume and adapt, chances are they are wedded to human capital theory.

Third, education suitable for lone wolves would be individualistic. Each learner would be treated as a rugged individual, self-sufficient and totally free. Learners would neither be tied nor indebted to one another. They would come together or interact not to forge some common good or collective purpose but rather to secure and optimize their private property. When sharks and barracudas appear, there will be no need for learners to band together in a collective struggle because each individual learner will be able to effectively neutralize these social parasites simply by enticing them with bags of educational goodies. Like the invincible, indomitable lone wolf, each learner would simply stock up enough ammunition and face the world as an educational Rambo.⁴ When educational programs treat learners as rugged, indomitable individuals in need of no other but themselves, it is a fairly accurate guess that they are wedded to human capital theory.

CONCLUSION

In this article, I have provided an overview of human capital theory, analyzed its basic assumptions, and discussed its pedagogical implications. The theory, I have concluded, treats humans as lone wolves: radically isolated hedonists, creatures of habit (not intentions) who temper their avarice with economic rationality. I have

suggested that educational programs that flow from such anthropology would be apolitical, adaptive, and individualistic. They would justify their goals and activities by simply appealing to the needs of learners, and they would treat learners' desires as entirely harmonious, discounting serious conflicts of interest. Such programs would justify their decisions and actions by appealing to inexorable forces such as technological advancement, demographic changes, the knowledge economy, and market cycles, and they would treat learners as fated beings whose only desires and options are to consume and adapt. And, finally, I have argued that educational programs that are wedded to human capital theory would treat learners as rugged individualists indebted to no one and requiring nothing of anyone.

But, maybe human capital theorists have it all wrong. Maybe humans are more than fated adapters. Maybe they are capable of becoming creative transformers. Perhaps it is possible for humans to transcend their lone wolf-like tendencies and become interdependent, social beings as Aristotle and Judeo-Christianity suggest. Perhaps it is not true that people's deepest desires and preferences are, ultimately, material and stable. Perhaps it is possible for human beings to possess a wide range of competing, opposing, and ever-changing desires. Perhaps there are genuine and even irreconcilable conflicts of interest between people such that political struggles (not just market relations) are necessary to attain justice. If it turns out that people do not live in a perfectly competitive, free market; that unequal power always structures their relations; and that structural inequalities exist that confer unfair advantages on some and undue hardships on others, then it is very unlikely that educational programs that are wedded to human capital theory—those that are apolitical, adaptive, and individualistic—will ever be able to redress social inequalities.

So, the next time you hear someone claim (or assume) that education or training is a cure-all; the next time someone offers technical training as the sole solution to poverty, unemployment, or underemployment; or the next time you hear someone explain and justify differences in earnings simply on the basis of differences in educational attainment, beware! You are probably in the company of a lone wolf, also known as a human capital theorist.

In writing this article, I hoped to accomplish two things. First, I wanted to demonstrate that pedagogical practices have deep anthropological and cultural roots and that an understanding of those roots might greatly illumine and aid our educational practices. I hope that I have convinced some readers to take a closer look at theories of human and social behavior, especially those theories attempting to explain the relationship between education and socioeconomic status. In search of such explanations, U.S. educators have tended to privilege psychology. I urge my readers to branch out into the domain broadly labeled *political economy*: It brings together such disciplines as social and political philosophy, history, sociology, social psychology, economics, and anthropology.

Second, I have tried to alert educators to the social bankruptcy of human capital theory. Admittedly, this attempt is quite preliminary. I trust that others will build on my efforts through pointed critical reviews and empirical studies. For instance,

readers may wish to investigate the following questions: What are the specific manifestations of human capital theory in adult education theory and practice? In what ways are pedagogical practices apolitical, adaptive, and individualistic? What impact do adult education programs that are wedded to human capital theory have on social inequities? Do they exacerbate or alleviate inequalities? In addition, there is an urgent need to develop and showcase education programs that are exemplary in their alleviation of social inequality. Their contributions must be clearly and unambiguously demonstrated, and their salient features must be identified and described. I invite my readers to join me in these efforts.

NOTES

1. Becker (1976) claimed that stable preferences—the belief that human desires are essentially the same across space and time—is a fundamental pillar of his economic theory (see the next section of this article). He seems to be contradicting that claim here (Becker, 1992).

2. Becker (1976, p. 24) acknowledged that discrimination occurs but assumed that the principle of utility maximization will ultimately force people to submit their discriminatory practices to the control of free market forces. Discrimination is therefore treated as a market “distortion” or “imperfection” that will eventually be righted by the “invisible hand of the market” (Becker, 1962, 1975, 1976, p. 24; Friedman, 1953; Smith, 1776/1937).

3. Locke’s (1947) notion of men and women was less brutish and nasty than that of Hobbes (1651/1968). Their differences emerge in their views concerning the state of nature. Hobbes (1651/1968) compared the state of nature with a state of war, a state of perpetual aggression “of every one against every one” (p. 189). He contended that outside civil society, everyone has a right to absolute power because there can be no legitimate limits to the amount of power one can garner, for power is needed to secure one’s inalienable rights: life, liberty, and estate. Only absolute power can secure one’s rights absolutely, limited power begets limited security (Hobbes, 1651/1968, pp. 189-201).

Locke (1947) did not identify a state of nature with a state of war. To him, the former was a condition in which men and women “live together according to reason without a common superior” (p. 84). In this state, each individual is his or her judge, juror, and executioner. In the state of nature, people’s right to power is limited by the law of nature, namely, that “one ought not to harm another in his life, health, liberty or possession” except when one’s property is seriously threatened (p. 78). Men and women degenerate into a state of war only when (through ignorance and/or greed) they use their liberty and power illegitimately, that is, in violation of the laws of nature (pp. 76-83).

4. In the movie *Rambo*, American actor Sylvester Stallone plays the part of a one-man army that takes on the world and wins.

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