

Socialism, Behavioral Theory, and the Egalitarian Society

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Abstract

This paper extends an earlier analysis (1988) of the extent to which socialism and capitalism are consistent with behavioral principles. I first argue that a reductionistic analysis from the level of systems to that of individuals is warranted. I then propose that socialism, unlike capitalism, fails to provide environmental arrangements that are likely to effectively direct behavior in our current technologically sophisticated environment. I conclude that a scientific, rather than a political, analysis will be more constructive in elucidating the conditions under which society can be altered to provide greater social and economic justice.

Socialism and capitalism, the two dominant forms of societal organization extant in developed and developing nations, are usually subjected to social, political, and economic analyses of their strengths and weaknesses. Such analyses do not address the extent to which each system is compatible with the principles governing human behavior, a crucial issue since both systems ultimately attempt to shape and control the behavior of *individuals*. In a previous paper (Rakos, 1988), I made an initial attempt to conduct a behavior analysis of both systems. This endeavor was prompted by personal observations of policies in several socialist countries (China, Czechoslovakia, Hungary, and Yugoslavia) compared to policies in neighboring nonsocialist states (West Germany, Austria, Italy, and Hong Kong), as well as discussions with citizens of those states. I argued that socialism violated many of the tenets of behavioral theory while capitalism was consistent with those principles. Specifically, I noted the limited potency of officially available reinforcers and lack of contingent relations between work behaviors and those reinforcers. This problem, in addition to stimulus generalization, response generalization, and modeling processes that all function to increase behavioral *diversity*¹, predict that socialistic arrangements will produce the very problems that currently exist in socialist states: low productivity, apathy, poor technology, chronic shortages of material goods, undesired competitive responses (e.g., participation in the illegal free market), escape and avoidance behaviors, and frustration with socialism along with envy of Western lifestyles. I concluded that when "human

nature" is scientifically understood as susceptibility to contingencies of reinforcement and the processes governing those relations, capitalism — not socialism — seemed consistent with human nature.

That article prompted two responses. Morrow (1988) argued that although socialism has the problems I identified, capitalism has greater ones, and, furthermore, that socialism is a young system still evolving. For example, he noted that both the Soviet Union and China now permit small scale private enterprise, and suggested that socialism may require an adjustment that affords some individuals the opportunity to earn large incomes in return for the emission of high frequency and quality work behavior. Morrow is not disturbed by this, for if it is necessary, "so be it", as long as the defining characteristic of socialism — public rather than private ownership of the means of production — remains intact.

Ulman (1988) asserted that my thesis had no merit whatsoever since it relied on the conceptual error of reductionism, confused socialism with true "worker states", and presented a mythical view of capitalism. Ulman argued that true socialistic theory is both politically and behaviorally sound, and that recent attempts by socialist countries to introduce market mechanisms represent serious regressions in the search for a workable egalitarian system. He described contemporary Cuba as the sole example of a nonbureaucratic, worker-managed, dynamic economy.

Morrow and Ulman both raised important issues, some of which will be discussed below; however, neither provided an incisive behavior analysis to support their political and ideological perspectives. The compatibility of each system with "human nature" must be decided by reference to scientific rather than subjective criteria. Thus, in this paper I will extend my earlier analysis.

This analysis is a reductionistic one, an approach to societal analysis that has been strongly criticized (e.g. Hayes, 1988). Indeed, Ulman (1988) asserted that I engaged in inappropriate reductionism, namely that my analysis of individual behavior was irrelevant to the analysis of complex social systems. He suggested that a more appropriate behavior analysis would utilize metacontingencies, the concept recently advanced by Sigrid Glenn (1986):

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¹ Modeling also conditions a wide variety of apparently desirable, but generally unavailable, secondary reinforcers.

"(t)he metacontingency is the unit of analysis describing the functional relations between a class of operants, each having its own immediate, unique consequence, and a long-term consequence common to all the operants in the metacontingency... In at least two ways, verbal behavior provides a critical link between contingencies and metacontingencies. First, verbal behavior in the form of rules bridges the gap between behavior and long-term consequences. That is, verbal behavior enables a single act, the statement of a rule, to occur in response to events widely dispersed in time. The rule may then enter, as a discriminative stimulus, into the contingencies of reinforcement that generate and maintain behavior unlikely to occur in its absence... Once the rule has been formulated, it can be used to bring others' behavior under stimulus control of that relationship... The second way verbal behavior enters into metacontingencies is when social reinforcement provides the consequence maintaining behavior under control of the rule until the long-term consequence can be discerned" (pp. 2-3).²

Glenn (1988) later refined this concept, suggesting that contingencies of reinforcement select the behaviors of individuals, while metacontingencies select the reinforcement contingencies operating for groups of individuals, sometimes resulting in undesired social consequences.

However, even in Glenn's (1988) reconceptualization, the metacontingency is not an independent, qualitatively different level of analysis than the reinforcement contingency. To the contrary, the more basic concept of the reinforcement contingency is an integral component of the higher level concept of the metacontingency. This *theoretical continuity* strengthens rather than weakens the case for reductionism. The crucial formal requirement for reduction is that all theoretical expressions in the higher order theory must connect with expressions in the more basic theory (Nagel, 1961; Turner, 1965). Concepts at a lower level of analysis can then be used to explain phenomena that concepts at a higher level describe. Such an explanation concerns the actual functioning of the higher level phenomenon, but is not necessarily relevant to the elucidation of the reasons why the phenomenon exists (cf. Glenn, 1988). For example, we can describe the *operation* of the central nervous system with lit-

tle reference to biochemical processes — but to explain its *functioning* requires reductionism from the system level to the cellular level and then to the biochemical level. Such reductionism does *not* attempt to explain the emergence of the nervous system by reference to biochemical processes. The identification of the appropriate level of analysis necessary to achieve the *purpose* of the analysis is the critical conceptual issue. In the present case, a reductionistic analysis of socialism does not render the associated sociological, political, and economic phenomena illusory; rather, it states the behavioral conditions under which these phenomena occur (cf. Nagel, 1961).³ Indeed, this is what Skinner has consistently undertaken, in, for example, *Beyond Freedom and Dignity* (1971), particularly in chapter # 8, "The Design of a Culture."

The reason, therefore, that the socialistic environment can and should be subjected to an analysis at the level of individual behavior lies in the critical role individual behavior plays in the metacontingency: since the metacontingent consequence is very delayed and, hence, a weak controlling stimulus, rules and social reinforcers are necessary to shape and maintain desired behavior to compete with the undesired behavior that presumably has powerful unacceptable short-term consequences as well as unwanted though very delayed long term consequences. Thus, an analysis of individual behavior may increase our understanding of the emergence of unacceptable metacontingencies.

In the case of socialism, the planned metacontingencies installed a complex bureaucracy that failed to increase the frequency of desired behavior due to the impact of behavioral processes affecting political leaders, managers, and workers at the individual level. Gorbachev (1987) offered a reductionistic analysis of this phenomenon in a speech to the Central Committee of the Communist Party in January 1987, as he discussed the operant behavior of individuals and contingent consequences controlling that behavior operating within, or despite, the planned metacontingency:

"The growth rates of the national income in the past three five-year periods dropped by more than half. From the early 1970s most plan targets were not met. The economy as a whole became cumbersome and little responsive to innovation. The quality of a considerable part of the output no longer met the current requirements and imbalances in pro-

² Glenn (1986) provided the example of the metacontingency related to long-term consequence of reduced air pollution. To achieve such an end result, engineers must emit the various operants required to design pollution control devices, workers must learn how to install them, consumers and industrialists must use them and purchase low-pollution fuel, refinery workers must develop and produce such fuel, and inspection agencies, procedures, and regulations must be established and followed. These behaviors are unlikely to all be emitted as required unless socially mediated contingencies are implemented.

³ Even Hayes, Hayes, and Reese (1988), despite strong criticism of reductionism, recognize that such analyses are not always inappropriate:

"In contextualism, parts are abstractions, and therefore reduction of some parts to other parts is merely an analytic, conceptual tool. Reductionism of this kind does not imply that the whole is literally reducible to the parts because the parts do not exist independent of analysis. Reducing parts to other parts is a fiction that may be useful in a given instance. Thus, a contextualist might suggest a biological explanation for a psychological event if it is useful in understanding the whole." (p. 14) Hayes et al. argue that behavior analysis is contextualistic — the operant response has little meaning when removed from the context in which it occurs. Cultural practices are also contextualistic (Hayes, 1988). In the present case, the concept of the metacontingency is consistent with a contextualistic analysis, and its reduction to individual contingencies provides us with a powerful and useful "analytic, conceptual tool" for furthering an understanding of the whole.

duction were aggravated...The policy of providing material and moral incentives for efficient work was inconsistent. Large, unjustified bonuses and fringe benefits were paid and figure-padding for profit took place. Parasitic sentiments grew stronger and the mentality of wage leveling began to take hold. All that hit those workers who could and wanted to work better, while making life easier for the lazy ones... As an inevitable consequence of all this, interest in the affairs of society slackened, signs of amorality and skepticism appeared, and the role of moral incentives in work declined. The section of people, including youth, whose ultimate goal in life was material well-being and gain by any means grew wider. Their cynical stand acquired more and more aggressive forms, poisoned the mentality of those around them, and triggered a wave of consumerism. The spread of alcohol and drug abuse and a rise in crime witnessed the decline of social mores. Disregard for laws, report padding, bribe taking, and encouragement of toadyism and adulation had a deleterious effect on the moral atmosphere in society" (cited in Galbraith, 1987, p 53).

Despite the nonbehavioral language and conceptualization, Gorbachev's remarks make clear that the socialist metacontingency failed due to the relative impotence of rules and social reinforcement as compared to immediate material consequences⁴. One can attribute all the failures of socialism to bureaucratic mismanagement, as does Ulman, and assert that such a bureaucracy is not inevitable, and cite one example (Cuba). But the more interesting issue is why *that* bureaucracy is such a dominant, perhaps inevitable feature of socialism (Kornai, 1986). Or, why all socialist states are plagued by chronic shortages of consumer goods, stagnant industrial output, inferior technology, inadequate innovation, and a generally restless population that envies Western lifestyles (Gomulka, 1986; Kornai, 1980, 1986). One can raise these issues without trumpeting capitalism as better. Certainly, with its unemployment, poverty, homelessness, unequal access to resources such as health care, inequality of opportunity, and general degradation of large segments of the citizenry, I do not believe capitalism is ideologically preferable to socialism. However, on a purely empirical basis, the contingent relations it establishes, unlike those of socialism, appear to effectively influence behavior in postmodern society.

Yet despite its shortcomings, socialism presents a set of ideals that captures our imagination, perhaps because we can so clearly observe the casualties of capitalism. Janos Kornai (1986), a Hungarian economist, identified socialist values as they are currently understood in his country to-

day. These include socialist wage-setting (to everybody according to his work and equal pay for equal work), solidarity (protection of and help for the weak), security (full employment and ready availability of community resources), and societal concern (priority of the general interest over those of the individual or small group). Kornai argues that, theory notwithstanding, experience suggests these values are incompatible with the requirements of economic efficiency, which include incentives to stimulate performance, careful cost-benefit analyses, flexible policies enabling rapid adaptation to changing external conditions, decision-making skills characterized by initiative, innovation, and risk-taking, and a mechanism to place personal responsibility for relevant events on decision-makers. These issues involve control of individual behavior in the modern industrial state, and as such, are particularly amenable to a behavior analysis.

A central tenet of socialism is the primacy of moral incentives as substitutes for material ones as controlling stimuli in the development and maintenance of productive work and social behavior. Moral incentives are abstract values that are verbally mediated conditioned stimuli that control behavior through their functions as S^D's and reinforcers (cf. Skinner, 1971). As such, their potency is partly dependent on other reinforcers with which they are associated, both in the initial conditioning process and in subsequent experience. Indeed, Ulman (1988) asserted that Cuba is making socialism work through political education, which basically refers to the inculcation or conditioning of socialist values as reinforcers for citizen behavior. But the question for behavior analysts concerns the extent to which such nonmaterial conditioned stimuli can maintain their power in a largely uncontrolled environment, and more specifically, whether such stimuli will be powerful enough to overcome the three problems identified in my earlier paper (Rakos, 1988): first, satiation with the limited set of sanctioned reinforcers available; second, lack of contingency between work and any reinforcing consequences; and third, the fostering of diverse nonsocialistic responses as a function of stimulus generalization, response generalization, and modeling, as well as the vicarious conditioning of numerous powerful material and service reinforcers.⁵ Furthermore, Herrnstein (1970) has demonstrated that a given rate of reinforcement will support a lower response rate in an enriched environment as compared to a barren one. Thus, the ability of socialist values to control responding is only partially dependent on their strength as conditioned stimuli: they must also be contingently related to behavior in a relatively barren, or highly

⁴ The Soviet Union has been the subject of behavior analyses addressing conditions before (Lamal, 1988) and after (Rakos, 1989) perestroika.

⁵ The bartering responses of consumers and shopkeepers demonstrate the operation of generalization and modeling processes. Bartering may be shaped, but is more likely to be acquired quickly through observation of compatriots as well as foreigners depicted in films or encountered during travel. Stimulus generalization will increase the frequency of bartering when new situations are similar to the training one. Other relevant stimulus dimensions may also promote generalized responding, such as the degree to which the setting is insulated from bureaucratic scrutiny. Response generalization will occur across all stimulus situations as repeated bartering experience results in a variety of response topographies that retain the essential functional characteristics. Finally, diverse secondary reinforcers will be vicariously conditioned as travel, communications, and the media expose individuals in socialist countries to unavailable goods and services.

controlled, environment. However, industrialized societies, by definition, offer their citizens an enriched, loosely structured environment: many reinforcers beyond those that are officially sanctioned are either available or potentially available. Herrnstein's hyperbola may provide a behavior analytic clue as to why socialism emerged in nonindustrial, barren environments (contrary to Marx's [1906] prediction), and why socialism is not working well today in industrialized states. The lack of systematic control in the environment is fundamental to my thesis. Regardless of the extent to which any modern state achieves control of behavior, whether so-called totalitarian or based on positive reinforcement as in *Walden Two* (Skinner, 1948), *that control will be inadequate to restrict the emission of a wide range of behavioral variants and also too limited to prevent the contingent reinforcement of some of those variants*. A certain proportion of those variants will be behaviors not functionally related to, or, more important, even inconsistent with, socialist values.

This situation is a product of the modern world, with its pervasive and varied means of information transmission. Formal education, through which students are exposed to countless ideas and the skills to implement them, is a widespread and increasingly fundamental characteristic of all states. Television crosses borders: Hungary cannot prevent its citizens from receiving Austrian television (Heinrich, 1986); the People's Republic of China receives Hong Kong television; East Berliners watch television from West Berlin. Travel is no longer constrained as it once was, for two reasons: citizens of the socialist countries countercontrolled the aversive travel restrictions and the socialist states required tourist revenue to bring in hard currency to prop up their sagging economies. So, education, communication, and transportation have exposed citizens of socialist states to numerous discriminative stimuli and potentially available reinforcers (i.e., various high quality consumer goods) that are functionally related to the emission of nonsocialist behaviors. Furthermore, technology itself enables humans to emit countless new behavioral variants, thereby expanding behavioral options, while also providing new establishing operations and stimuli, S^p's, and reinforcers for these behavioral variants. For example, microwave ovens permit an increased variety of cooking responses, and may also increase motivation to cook, prompt cooking, and improve cooking efficiency so that less time and effort are expended on meals that are more enjoyable. The world can no longer be controlled in the way necessary for socialist values to maintain their potency. And capitalism — through the technology explosion it fostered, and in a manner consistent with Marx's (1906) view that humans create their own history — is largely responsible for the natural evolution of such a motivating environment.

Thus, socialism's failure to recognize the reinforcing properties of material stimuli in the postmodern world is principally responsible for its failure to meet the needs of its

citizens. Some supporters of socialism now accept these stimuli as necessary for a stable socialist society (e.g., Aganbegyan, 1988; Gorbachev, 1987; Morrow, 1988), but others consider them antithetical to egalitarian societies (e.g. Ulman, 1988). Thus, Ulman noted that Cuba has relied on *rectification*, essentially the conditioning of socialist values, instead of material incentives, and asserted that the result has been a tremendous increase in voluntary work behavior, the consequence of which has been a huge increase in productivity (e.g., construction of housing and public buildings and roads). This is a limited view of the process: Cuba has been able to experiment with socialism because its economy has been propped up by huge subsidies from the Soviet Union and even then it has found it necessary to implement a system of material incentives contingent upon work output (Brundenius, 1984; MacEwan, 1981; Mesa-Lago, 1981, 1982). Furthermore, voluntary labor has produced its own productivity problems: these workers leave their regular jobs for extended periods of time, yet are not replaced by others, resulting in significant decreases in output in the "home" factory or farm (Mesa-Lago, 1982). It appears that every socialist country has had to develop some system of individual incentives to stimulate on-task, productive work behaviors: Yugoslavia, Hungary, and Poland (Gomulka, 1986), the People's Republic of China (Lamal, 1984), Cuba, and now the Soviet Union (Aganbegyan, 1988; Gorbachev, 1987).

It is not surprising that material incentives appear to be essential for behavioral efficiency. The reason for this phenomenon can and should be ascribed to "human nature". However, human nature need not remain a version of "autonomous man" (Skinner, 1971); it can be operationalized in behavioral terms. First, humans are reasonably sensitive to the immediate consequences of their responses. Second, humans emit an incredibly diverse array of behaviors. Third, we produce these responses in environments that permit their emission; our industrial, technological environment goes one step further and actually prompts diverse behaviors. Fourth, our verbal behavior allows us to extend the range of behaviors even further by introducing infinite numbers of S^p's, responses, and reinforcers into an already overstimulated environment. In other words, our behavioral repertoire is so vast, and the modern environment so lacking in systematic control that *de facto* behavioral diversity is a reality. In these circumstances, immediate consequences, which are usually material and/or tangible in some respect, will exert powerful control over the emission of responses. Marx (1906) believed that the power of such consequences was simply a function of capitalistic economic arrangements. However, the experiences in this century of socialist countries faced by the necessity of instituting incentive systems strongly suggest otherwise. The reason is apparent: socialism has been implemented in unprogrammed environments.⁶

⁶ Even in precapitalist times, the vast majority of individuals who lived in uncontrolled environments responded to immediate contingencies and

Nonetheless, socialist values and the metacontingencies embodying them rely on rules and social reinforcement, not material incentives, to guide and influence behavior. But, in a socialist world the rules and social consequences compete with immediate material reinforcers for control of behavior. Rules are powerful stimuli that can render behavior insensitive to actual contingencies (Catania, 1984), but only under certain circumstances. Inaccurate rules, general rules, and extended contact with direct contingencies are variables that weaken rule-governed behavior (Hayes, Brownstein, Haas, & Greenway, 1986; Hayes, Brownstein, Zettle, Rosenfarb, & Korn, 1986). These variables are likely to be present in the socialist system and result in the primacy of contingency-shaped over rule-governed behavior. Similarly, social praise is likely to decrease in reinforcing value over time when alternative consequences for behavior include material reinforcers. If this holds, then the matching law (asserting that individuals on concurrent schedules of reinforcement will distribute their responses relative to the rate, delay, and potency of reinforcement [Catania, 1984]) predicts that individuals will spend a significant proportion of their time emitting "capitalistic"-type responses that acquire relatively immediate material reinforcers at the expense of "socialistic"-type responses that are related to less tangible and/or relatively delayed outcomes.

In addition, newer behavior analytic concepts such as stimulus equivalence classes may play a critical role in social and economic behavior. Humans apparently can form these foundations of symbolic behavior due to verbal skills (Catania, 1984; Hayes, 1987). Viewed from this perspective, it seems reasonable to hypothesize that money acquires additional functions besides that of a generalized secondary reinforcer: specifically, the power of money resides partly in its ability to form symmetrical and transitive equivalence classes with numerous material goods and become symbolically equivalent to specific commodities. Furthermore, money (via the material and service reinforcers it can acquire and with which it is, therefore, associated) may also form an equivalence class with the concept of *behavioral freedom*.⁷ Money, for example, may be an S^p for shopping and acquisition responses. Recent research has demonstrated "...that characteristic reinforcers will enter into equivalence classes with antecedent stimuli (and) huge classes can be established in which an enormous number of derived relations can be produced as a result of a few trained discriminations" (Hayes, 1987, p. 52).

Finally, the "human spirit" must be discussed briefly, since socialism and capitalism both claim to embody it.

Writers, philosophers, theologians, poets, utopians, and other observers of the human condition have for centuries extolled its existence. Skinner (1971) described such behavior as the emission of counter-controlling responses under aversive environmental conditions. But we can also discuss the emission of "spirited" behavior in environments that have large elements of control via positive reinforcement. I suggest that in the latter circumstance "spirited" behavior is characterized by a lack of acceptance of the status quo. A behavior analysis of the phenomenon might embody the following elements:

1) In diverse, unstructured environments containing establishing operations, establishing stimuli, discriminative stimuli, and reinforcing stimuli, as well as conditions to form countless equivalence classes, attainment of readily available primary and secondary reinforcers quickly leads to satiation.

2) In such an enriched environment, satiation does not lead to a general reduction in the frequency of responding, only to a decrease in the frequency of those responses contingently related to the accessible reinforcers. Satiation, with its accompanying feelings of boredom, frustration, and dissatisfaction, functions as an aversive S^p that prompts escape behavior, and when well learned, avoidance behavior.

3) These escape and avoidance responses include an incredible variety of verbal and nonverbal behaviors, both overt and covert. Many of these behavioral variants, often creative and innovative, but sometimes self-destructive and self-injurious (e.g., excessive drug use, risky sports and hobbies), are more powerfully controlled by actual contingencies than by rules. They eliminate the aversive stimuli associated with satiation and produce numerous new positive reinforcers which are potent due to deprivation. Thus, both positive and negative reinforcement shape and maintain "spirited" behavior.

Socialism essentially asserts that abstract conditioned values and delayed reinforcement function as effective substitutes for the hedonistic and material reinforcers whose acquisition through "spirited" behavior removes or avoids the aversive conditions associated with satiation. Such an assertion requires that rules and social reinforcement be effective in suppressing undesired "spirited" behavior, while maintaining behavior consistent with the abstract values and delayed reinforcers. This must occur for socialism to work, since state ownership of the means of production necessarily implies that output is resource-constrained as opposed to demand-constrained (Kornai, 1986). That is, central decision-making is the mechanism that determines how re-

sought material goods and some personal wealth at the expense of those who lacked behavioral freedom. Numerous examples of such behavior in the feudal system alone can be cited. In the later Middle Ages, landowners shifted to a system of charging rent to peasants for use of the land, thereby solidifying class distinctions (Keen, 1967). The bourgeois distinguished themselves from the lower classes by ostentatious displays of wealth and material goods (Lacroix, 1963). Many lords and members of the nobility appointed their castles with lavish furnishings (Lacroix, 1963).

Furthermore, most individuals, in the past as well as the present, who appear to possess behavioral freedom, but whose behavior is controlled by abstract or ascetic reinforcers, have engineered this by removing themselves from the uncontrolled environment and placing themselves in one that is isolated from material reinforcers and guided instead by rigid forms of rules and social consequences.

sources shall be allocated rather than market mechanisms. But, such central planning inevitably requires a massive bureaucracy with vested interests (Kornai, 1986)⁸ that is inherently slow to respond to the rapidly changing modern environment (Gomulka, 1986). And these conditions, combined with low productivity (characteristic of an economic system that excludes a contingent relationship between work output and wages) results in chronic shortages of industrial and consumer goods, even those of poor quality (Kornai, 1986). Thus, socialism cannot, by itself, move a state toward continual improvement in the standard of living, a necessary characteristic of any economic system according to the Marxian theory of economic development and social change (Gomulka, 1986). On the level of the individual worker, this suggests that the socialist metacontingency will fail to maintain desired behavior, and, in fact, will provide numerous S^D's prompting incompatible unwanted alternatives — many of which are likely to be reinforced by immediate material consequences.

It is easy to dismiss my argument as antisocialist, and to assert that bureaucracy and capitalism have prevented the implementation of "true" socialism. But in my view the argument for pure socialism rests on the belief that moral values and social reinforcement can be conditioned as reinforcers more powerful than material ones and that rules rather than direct contingencies will usually control behavior. As I have asserted, in an uncontrollable environment, this seems unlikely. The Skinner box, as a highly controlled environment, functions as an establishing stimulus increasing the likelihood that a rat will press a lever frequently or that a pigeon will peck a disk frequently. This environment limits response variation and establishes conditions of deprivation that enhance the potency of food as a reinforcing stimulus. But a lever in a field or a disk in a tree are unlikely to become salient S^D's for rats or pigeons, respectively. Socialism may work only if the environment is completely controlled — but human behavior has long since made that an impossibility through technology, via the stimuli it provides and the behavior it makes possible.⁹

Does that mean capitalism, being consistent with human nature as I have defined it, is the preferred route? The answer depends on how one defines the terms. Clearly, when individual behavior is controlled only by immediate

consequences, many other people are hurt, both in the short and long term. The industrialist pays workers poor wages and pollutes the environment. The drug dealer disrupts the behavioral repertoire of the buyer and perpetuates an underworld subculture. The illegal taxi driver fails to pay needed taxes and models undesirable behavior. The politician ignores the disenfranchised and builds more bombs. Pure capitalism is clearly not the answer for the very reasons asserted by socialism. A "free market" system is not *humane*, though in my view it is thoroughly *human*. But on the other hand, socialism, while very *humane*, is not really *human*.

There is no resolution to this paradox at present, but the continued scientific analysis of human behavior offers us the greatest opportunity to uncover one. Our task, as Skinner (1971) has emphatically described it, is to design a culture that will survive, and more than that, will survive because it meets our needs, that is, is *both* humane and human. Currently, we see capitalistic countries increasingly employing socialist principles, as in Sweden. And we see socialist countries increasingly instituting capitalistic tenets, as in Hungary. This is analogous to the well-known statistical phenomenon of regression toward the mean. These political experiments are constructive attempts to combine humane ideology with human pragmatism. But their failure to utilize the principles of behavior analysis will probably restrict their advances to trial-and-error stumbling. Our task, as individuals committed to fostering progressive social change, and to restructuring society, is to abandon ideology — including that of an egalitarian society¹⁰ — and replace it with a commitment to analyze society from the scientific perspective of behavior analysis¹¹. Should we accept this challenge, I predict we will find a way to design a society that *despite inevitable inequalities* can provide each individual with diverse and satisfying reinforcers well beyond the minimum required for subsistence, an environment wherein numerous additional reinforcers are attainable through the emission of additional on-task behavior in the future. Skinner (1971) has argued that "presumably, there is an optimal state of equilibrium in which everyone is *maximally* reinforced" (emphasis added). Writing about the real world, away from *Walden Two*, Skinner abandoned his utopian vision of an optimal state of equilibrium in which everyone is *equally* reinforced. I believe we must follow suit.

⁷ It is possible that, through transitive relations (i.e. money behavioral freedom, behavioral freedom/democracy), money and democracy are equivalent concepts, suggesting that the current demands for democracy in Eastern Europe are in reality demands for money and material reinforcers.

⁸ Cuba today is experimenting with a combination of central planning and decentralized worker self-management. It is too early in the process to predict whether a bureaucratic elite will emerge from the political process, or whether significant amounts of control will remain with the workers (MacEwan, 1981). Perestroika in the Soviet Union also relies on worker self-management (Rakos, 1989).

⁹ Both reviewers of this article observed that the size of the environment to be controlled is an unexplored parameter. Reviewer A suggested rules and social reinforcement may be particularly potent in small groups, but not in large ones (cf Skinner, 1948), while Reviewer B noted small groups provide the opportunity to rely on natural reinforcers in lieu of material ones (cf, Los Horcones, 1989). I want to thank them for raising this point; it is clearly one deserving extended analysis.

¹⁰ Gorbachev (1987) acknowledged that the pursuit of excessive egalitarianism is partially responsible for the current economic and political stagnation experienced by the Soviet Union. The People's Republic of China had previously arrived at the same conclusion in regard to their circumstances (Lamal, 1984).

¹¹ Interestingly, Gorbachev (1987) notes that history, sociology, economics, and philosophy can all contribute to *perestroika*. His omission of psychology is a telling comment on the perceived intellectual and pragmatic limitations of that discipline.

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