A RADICAL ANALYSIS OF WELFARE ECONOMICS AND INDIVIDUAL DEVELOPMENT *

HERBERT GINTIS

Recent decades mark the progress of industrial countries as one of rapprochement between capitalist and state socialist systems. However bitter the historical feud between so-called socialists and their capitalist adversaries, the present generation of economists views their differences as minimal in comparison with their areas of agreement. One side has given up Marx, and the other, Adam Smith. Both have settled on a bureaucratic and hierarchical industrial order incompatible with either. Indeed, both camps have espoused the goals of an alienated society, and their differences concerning policies of implementation are mere shadows of intellectual controversy.

This article criticizes the welfare paradigm behind this convergence, and presents an alternative embodying the élan at the base of latter-day radicalism. Both critique and alternative are based on two Marxist principles. First, we take "preference structures" as endogenous to the economic mechanism, following the dictum that "individuals develop according to the way they participate in the social relations of production," although the mechanisms by which this is effected (associative, cybernetic, and institutional patterning) go beyond Marx's own theoretical position. Second, we extend the scope of welfare-relevant entities from goods and services to the gamut of social roles, relations, activities, and objects. Since economic activity has a formative influence on all aspects of social life, and as individual welfare depends on the structure of environment, community, and work activities, as well as on the pattern of individual psychic development, this breadth must be incorporated in a model of economic welfare.

Rather than attempt comprehensiveness, this critique touches

* I would like to thank Samuel Bowles, Richard Musgrave, and Stephen Marglin for helpful comments in the preparation of this work.

only the neoclassical treatment of economic activity in relation to *individual* welfare. A comprehensive assessment of the neoclassical welfare paradigm must come to grips with at least three additional issues: (a) the problem of aggregating individual welfares into an inclusive "social welfare"; (b) the conception of the state in its relationship to economic activity in capitalist (respectively state socialist) society; and (c) the role of normative theory in the development of society.[1] Hence our analysis avoids some of the most pressing issues in assessing both theory and society: the question of inequality, the power and amenability of the state to correct social defects originating in the economic system, and the social functions of economic theory. When mentioned in passing, these issues will be relegated to footnotes, to be taken up again in the conclusion of this paper.

Moreover, while a parallel analysis may be applicable to state socialist economies,[2] this critique will be limited to: (a) the neoclassical justification of basic capitalist institutions — labor, land, capital, and commodity markets, and the control of production by owners of the means of production or their managerial representatives; (b) the neoclassical assessment of the welfare impact of capitalist development; and (c) the usefulness of neoclassical theory in constructing alternative economic institutions more conducive to individual welfare.[3]

I shall argue that: (a) the neoclassical formulation of individual welfare is unsatisfactory, and an acceptable alternative can be provided (Sections I, II); (b) to use this alternative requires a vastly expanded model of economic activity from the usual general equilibrium treatment (Sections III to VI); (c) in this expanded model, the presumed optimality of market institutions and capital-

1. I have discussed the first in my Ph.D. thesis, "Alienation and Power: Towards a Radical Welfare Economics," Harvard University, May 1969, pp. 28–43. The second is treated at length in Gintis, "Contre-culture et Militantisme Politique: La Dialectique de la Radicalization dans le Capitalisme Opulent," *Les Temps Modernes,* Feb. 1971. A Marxist perspective on the third has never been explicitly developed, but would fall under the general problem of "theory and practice" in historical change. See, for example, Fredrick Engels, *Herr Durings's Revolution in Science* (New York: New World, 1970), pp. 94–130. For an American institutionalist treatment, see Thorstein Veblen, "The Limitations of Marginal Utility," *Journal of Political Economy,* XVII (Nov. 1909), 620–36.

2. The case of other paths of social development — e.g., the Chinese — is more complex, considerably outside the neoclassical paradigm (see John Gurley, "Maoist Economic Development: The New Man in the New China," *Review of Radical Political Economics,* II, No. 4, Winter, 1970, 26–38), and hence requires different treatment.

3. In particular, this analysis consistently eschews the comparison of capitalism with any alternative social system.

ist control of production fails, even where traditional "market imperfections" and "externalities" are absent; (d) hence neoclassical welfare theory leads to inadequate analysis of central elements of economic life — e.g., work, technology, education, and consumption (Sections VII to X); and (e) the extended version of this theory, while formally correct, is not operational — it does not reduce to a well-defined and acceptable set of criteria applicable to the assessment of alternative economic institutions. It does, however, pose important questions of empirical and theoretical research.

I. On Individual Welfare

Welfare economics deals with the effects of economic phenomena — production, allocation, and distribution of material goods and services — on social welfare. There is no *prima facie* means of circumscribing a section of social welfare — to be labeled "economic welfare" — in terms of which the effects of economic phenomena may be evaluated. Wherever economic activity, directly or indirectly, affects the social order, we are in the realm of welfare economics.

"Social welfare" means the aggregate of "individual welfares" of all members of society. As such, the problem of social welfare reduces to a problem of individual welfare and a problem of aggregation. The so-called New Welfare Economics treats these two aspects separately and leaves the aggregation problem to the political mechanism. This separation involves treating unaggregated individual welfares through the concept of Pareto optimality, leaving aggregation to a politically defined "social welfare function" or a politically implementable set of "redistribution criteria." Here, we abstract from this problem, to concentrate on the treatment of "individual welfare" itself.

We may then take "welfare economics" as the study of the effects of economic activity on individual welfare. A person's welfare derives, in the last instance, from the nature and quality of the set of *activities* — eating, sleeping, loving, playing, praying, working, creating, hurting, dying — that he/she undertakes in his/her daily life. We can isolate three generalized aspects of individual activities pertinent to individual welfare.

First, most activities take the form of a relationship, and hence have an *object*. This object may be the individual's own *organism*, as when he/she caresses or admires his/her own body; his/her *personological structure*, as when he/she conquers a fear, appreciates

a personal trait, or develops his/her personality; a *social object,* such as family or community; a *cultural object,* as when he/she writes or reads a novel, comprehends a scientific theorem, appreciates a poem, or observes the structured physical activity of others (i.e., a "sport"); and lastly, it may be a *physical object,* such as the natural environment or a material good. These five categories exhaust the possible objects of a relationship in a social system.[4]

Second, all activities require intentional and initiating behavior on the part of the subject. It will be convenient to organize these into five modal types, referred to as capacities. Thus an activity might embody a *psycho-motor* capacity, as exemplified in "kicking a football"; a *cognitive* capacity, as in remembering a football "pattern"; an *affective* capacity, as in "loving someone," "tuning in to nature," or transmitting "team spirit" in a work activity; an *aesthetic* capacity, as in appreciating a painting or an object of production; or lastly, a *spiritual* capacity, as in prayer or ritualistic activity.

We shall call the development of capacities in these various directions "individual development." This "capacity-orientation" to individual welfare will serve several purposes. First, it will allow an important (albeit limited) assessment of the welfare implications of preference change in a single individual. Second, it will allow limited (although important) generalizations concerning the impact of economic activity on changes in welfare across individuals. Last, participation in preparation for social activity affects capacities directly, and manifest preferences and welfare only indirectly. Hence "capacities" are necessary instrumental variables in a correct analysis.

Third, in addition to capacities for and objects of activity, most activities require *instrumental means* for performance. While the most immediate of these are goods and services, in general, the categories of instrumental means coincide with the *objects* of activity outlined above. Thus one's organism is a "means" for kicking a football; his/her personological organization is a resource for relating to another individual; and similarly with respect to social, cultural, and physical objects.

We shall call the above objects "unit-objects." Unit-objects have two "modalities" in the context of welfare analysis. When an activity is considered as a relationship, a unit-object occurs in *relational modality*; when an activity is considered as goal-oriented

4. Talcott Parsons, *The Social System* (New York: Free Press, 1951), p. 4.

behavior, a unit-object occurs, as a means to given ends, in *instrumental modality*. The quality of an activity — its conduciveness to individual welfare — depends in part on the availability and the attributes of the instrumental means involved in performance.

In summation, individual welfare depends on the quality of unit-objects in relational modality, on the level and pattern of individual development, and on the availability and attributes of unit-objects in instrumental modality. This complex defines the micro-units in our welfare analysis.

II. An Overview Critique

Neoclassical theory takes a much narrower view of individual welfare. First, it views welfare as a direct function of the unit-objects available to the individual. That is, it considers objects as ends in themselves. This approach doubly distorts the relationship between unit-objects and welfare. First, it obscures the fact that behavior and satisfaction vis-à-vis a unit-object in relational modality are mediated by individual capacities; i.e., it obscures the relationship between unit-objects and individual development, in not recognizing that welfare depends not only on what an individual *has*, but on what he/she *is* as well.[5] Second, it obscures the fact that a unit-object, as the instrumental means to performance of a given activity, is valued not through its technical characteristics alone, but also through a complex of social norms defining the range of acceptable attributes.[6] Thus proper clothing in one society is mediated by loincloths, in another by cotton shirts, in another by silk shirts, and in a fourth by Dior originals. Similarly, "relating to a natural environment" is mediated by tramping in the woods behind the barn in one society and taking a summer vacation in a second. In short, individual welfare is dependent on the way in which activities are mediated by unit-objects in instrumental modality. This mediation is influenced by economic activity.[7]

Second, neoclassical theory reduces the relevant unit-object domain to (a) those unit-objects commonly marketable in capitalist society — e.g., physical factors and goods, personal services and labor; and (b) a catch-all residual category of physical unit-objects and government-provided services that have been at some historical

5. More simply, neoclassical theory takes individual preferences as given for the purpose of welfare assessment.

6. See Karl Marx, *Grundrisse der Kritik der Politischen Oekonomie* (Berlin: Dietz, 1953), p. 14, and Gintis, "Alienation and Power," *op. cit.*

7. Thorstein Veblen, *The Theory of the Leisure Class* (New York: Mentor Books, 1960), pp. 33–40, 118–30.

point the focus of political struggle (e.g., mass transportation) or requisites of capital expansion (e.g., social intrastructure).[8] Thus it abstracts from organism, personological organization, social roles, and cultural forms, as objects relevant to welfare in either instrumental or relational modality.

But neoclassical welfare economics does not claim generality. Rather, it claims validity within its own realm of application — that is, in considering those aspects of welfare that involve marshaling scarce resources toward the satisfaction of competing ends. To deal with individual development, according to this contention, one must simply consult another theory. Yet this assertion asks us to believe that the way in which resources are allocated does not itself affect preference development.

In the sequel, we shall show why this view must be rejected. In essence, the institutional mechanisms indicated by neoclassical theory, and embodied in capitalist society, have implications that are not restricted to economic efficiency, but that directly affect the way society handles individual development. To prove this, we must answer two closely related questions. First, how does the implementation of economic institutions geared toward the maximization and efficient allocation of material production affect the development of individual preferences and capacities? Second, what are the theoretical errors, both logical and factual, underlying the separation of "efficiency" judgments from judgments of individual development in neoclassical theory?

8. Thus there is no theoretical criterion — much less a true or false criterion — behind the welfare-relevant unit-object domain in neoclassical theory. Here theory has reflected practice in a particularly direct sense: Neoclassical welfare economics has developed around a particular social system, with the end of justifying it, and of developing tools harmonious with its smooth functioning. The faults of the theory reflect the faults of the system that it depicts.

The virtue of capitalism lies in its ability to generate quantities of marketable goods and services. It accomplishes this by devising institutions that organize the development of society and the allocation of resources around the criterion of "economic efficiency" in the sense of maximal output per unit of resources. In this process, all other unit-objects are treated as means toward the end of economic efficiency narrowly conceived. The development of the environment, land, and resources as marketable commodities conforms to the efficient, atomistic logic of production. Work activities conform to the criterion of cost minimization and develop historically according to a technology whose internal diffusion is based on profit rationality. Neoclassical theory must perform on a theoretical level what capitalist society performs on the practical. As nonmarket unit-objects are treated as "means" toward the maximization of marketable product by capitalist institutions, the justification of these institutions on the part of neoclassical theory requires their being stripped of inherent welfare characteristics, unless and until political reality renders this glaringly unacceptable (witness the current concern over "ecological destruction" and the neoclassical accommodation).

We shall begin with the second of these questions. If the conclusions of neoclassical theory are false, so must be one or more of its premises. The assumptions of neoclassical theory are twofold. First, an individual is considered "better off" if he/she is moved from one situation to another that he/she prefers under his/her existing preference ordering. Second, society as a whole is "better off" if one individual is rendered better off with no individual rendered worse off.[9] Through these axioms, the justification of the separation of efficiency and individual development is complete. Few formal arguments are given for their acceptance, and they are commonly held "intuitively obvious." [1]

But the first axiom is "intuitively obvious" only assuming that the process by which individuals are "moved" to preferred positions does not in itself alter preference structures. The individual *would be* better off, we will agree, *if* he/she were the same individual; i.e., insofar as his/her preference structure had not changed in the process of movement. Otherwise, we can say nothing, without also making allowance for the latter nexus.

By positing this axiom, neoclassical theory turns against itself. Given individual preferences, it "recommends" a complex of economic institutions insuring "Pareto optimality," which, by their very operation, mold individual development. For example, take an individual who has been consuming a commodity bundle including "cotton shirts," but who would prefer the same bundle with silk shirts substituted for cotton. Given this new bundle, the individual is, according to the axiom, better off. But has his/her welfare increased? Perhaps not. For the very process of consuming the new bundle changes the individual's preferences. In particular, if he/she becomes accustomed to silk shirts, he/she may be no better off after the change than before. If the reader doubts this, he/she should ask if this individual, upon being returned to his *original* commodity bundle, regains his/her original level of welfare. Common experience tells us he/she will not.[2] Another example: neoclassical theory tells us that individuals are made better off by increasing "economic productivity" through "improved" technology. But introducing a new technology involves altering the pattern of

9. I. D. M. Little, *A Critique of Welfare Economics* (Oxford: Clarendon Press, 1962), p. 52; Francis Bator, "The Simple Analytics of Welfare Maximization," *American Economic Review,* XLVII (March 1957), p. 27.

1. Little, *op. cit.*, p. 16; Veblen, "Limitations of Marginal Utility," *op. cit.*

2. This is the central point in James Duesenberry's classic *Income, Savings, and Consumer Behavior* (Cambridge: Harvard University Press, 1949). See also Veblen, *Theory of the Leisure Class,* pp. 80–87.

work activities. Individuals, by entering into new patterns of work activities, alter their capacities and preferences.[3]

To appreciate the import of this axiomatic slip, however, we must ask how *in general* the erection of economic institutions geared to the maximum production and efficient allocation of marketable product affects development of individual capacities. We anchor this problem in a general model linking social organization and individual welfare.

III. The Generalized Production Possibilities Set

The "units" of social organization — i.e., the building blocks of society, viewed in terms of their functional position in maintaining, reproducing, and stabilizing the social system — and the unit-objects of social welfare — i.e., the complex of physical, personological, social, and cultural unit-objects — coincide. Thus, in addtion to the relational and instrumental modalities of a unit-object available on the *subjective* level, we may add an *objective* "functional modality."

Some examples of a unit-object combining relational and functional modalities are as follows: The same *environment* to which the individual relates is the material environment within which economic activity takes place, from which it draws its resources and into which it discharges its effluvia. The same *family* to which the individual relates must instill patterns of personality and values in the young that are compatible with the cultural norms of individual behavioral organization. The same *spiritual value* to which the individual relates must be specializable to sets of differentiated norms providing the adequate definition and justification of the concrete roles of collective organization.[4]

While the concurrence of relational and functional modalities is not recognized in neoclassical theory, the concurrence of instrumental and functional modalities is often stressed — viz., Mandeville's "private vices and public virtues" and Adam Smith's "invisible hand." Thus individual consumption has the function of preserving the circular flow of goods and services.[5] Similarly, *work activity* assumes in part the instrumental modality of "means to jurisdiction over commodities" through its monetary rewards, while

3. Gintis, "Alienation and Power," pp. 82–90; Vernon Venable, *Human Nature: The Marxian View* (Cleveland: Meridian Books, 1966), pp. 49–55.

4. Parsons, *The Social System*, pp. 3–23.

5. John R. Commons, *Institutional Economics* (New York: Macmillan, 1934), pp. 348–66.

in its functional modality, it reflects the central place of work in production. No less, the *legal system* is instrumental in the individual's desire for redress of injury and functional in providing social codification for the pattern of values and norms that govern collective activity.

Not all unit-objects are available in unlimited quantity, and only a limited number of the a priori infinite "combinations" or "bundles" of unit-objects are actually feasible. That is, given certain aspects of social organization, the range of variation of others is strictly delimited. This principle is, of course, well known in the more restricted sphere of economic theory: resources and products are not available in unlimited quantities, and only certain combinations of output are feasible. The set of feasible combinations of unit-objects in economic theory is called the "production possibilities set."

In our more general formulation, the "set of feasible unit-objects" is more complex. In following sections, we shall analyze only two such general types of "interrelation" among social objects. The first involves restrictions placed by the social system on environing systems — physical, personality, and cultural. The second involves restrictions placed by the economic subsystem on the social system per se.

IV. Functional Imperatives and Individual Development

The social system consists of the structured interaction of individuals. This structuring takes the form of concrete "roles" ordering the individual's relations to his social environment and involves the normative regulation of role-associated behavior.[6] That is, the role-occupant is "expected" to operate in a manner, is rewarded and penalized accordingly, internalizes a set of ethical norms as to proper role-behavior, and his/her actions and intentions are "understood" through a system of role-specific symbolic categories. The further structuring of individual interaction takes the form of the organization of interrelated roles into collectivities, such as family, firm, community.

Social roles and collectivities form a basic set of unit-objects available to the individual and are relevant to welfare theory in the same sense as physical, marketable unit-objects. Moreover, the study of social roles and collectivities as unit-objects falls into the realm of welfare economics per se, when we notice that the set

6. Parsons, *The Social System,* pp. 38–39.

of social roles is by no means independent from the set of physical, marketable unit-objects. Indeed, it is a commonplace of economic theory that only certain types of productive activities and organizational-technological forms — and hence their coordinate social role configurations — are compatible with the availability of high levels of material product.

The pattern of social unit-objects delimits the range of variation of unit-objects on the level of personological organization. That is, certain societies require certain "kinds" of people. Why? Simply because role performance is predicated on the *internalization of the norms* of role-relevant behavior, on the individual *motivation* to assume such roles, as well as on the individual's development of the *operational capacities* for performance.[7] First, viewing the individual "personality system" as the learned components of the organization of individual behavior, the operational capacities for adequate role performance become *restrictions on the paths of individual development compatible with a given social organization.* Second, individual motivation to assume central social roles requires individual cathexis of the social rewards for adequate performance. Individual adherence to the social system as a whole, as well as specific motivation to role performance, requires that individual goal orientations be satisfied only through the mediation of central social institutions.[8] Hence a change in the pattern of social institutions is unlikely to be compatible with the existing pattern of goals and values.

For instance, an economic system organized around market efficiency will speak to the satisfaction of material needs in the widest sense, and will use material instruments (in their functional modality) as a central facility patterning role performance. Hence the system of productive roles will exact adequate motivation — in a situation where the subjective value of work activities is insufficient — only if individual goal orientations are patterned around market acquisition to the exclusion of other potentially relevant modes of orientation.[9]

7. Herbert Gintis, "Education, Technology, and the Characteristics of Worker Productivity," *American Economic Review,* LXI (May 1971), 266–79); Alex Inkeles, "The Socialization of Competence," *Harvard Educational Review,* XXXVI (June 1966), 265–83.

8. Parsons, *The Social System,* pp. 26–36. More simply stated: to be acceptable to individuals, a society must be seen as "delivering the goods." (Herbert Marcuse, *One Dimensional Man*; Boston: Beacon Press, 1964, Ch. 1.) Hence whatever it is that society "delivers" must also be internalized as central to individual "needs."

9. Herbert Gintis, "New Working Class and Revolutionary Youth,"

Last, the way in which social organization delimits the range of variation of the cultural system, and hence of unit-objects on the level of culture, derives from the above analysis. Ideas, values, and beliefs — unit-objects in relational and instrumental modality of central importance to individual development — must be compatible with the system of differentiated norms governing role behavior, the organization of collectivities, and the legal relations defining social power, control, and ownership. Moreover, cultural objects must be of such a nature that their internalization in individuals can be compatible with the personological unit-objects compatible with given social institutions and collectivities.

We infer from this schema that an adequate welfare theory must consider the effect of a particular organization of economic institutions, not only on the implied set of marketable physical unit-objects, but on the properly economic unit-objects in the form of economic roles and collectivities, on other relevant social unit-objects, and on the compatible "bundles" of unit-objects on the level of physical, personality, and cultural systems. Neoclassical welfare theory is biased in assessing institutions on the sole basis of their contribution to commodity production.

But individual welfare depends also on the path of development of the individual's capacities for undertaking activity. Thus we must analyze the way the organization of social institutions, and economic institutions in particular, affects the development of individual capacities.

In fact, individual capacities are precisely the welfare-relevant aspects of personological organization. Thus the way in which the social system delimits the system of personalities as unit-objects in functional modality, translates directly into the limitations on the range of feasible patterns of individual development.

For instance, the individual capacities requisite to adequate role performance themselves represent a pattern of "individual development." Clearly, patterns of individual development conducive to performance of instrumental roles in society need not coincide with patterns conducive to individual welfare. Hence a contradiction may arise between development toward instrumental role performance and development toward individual welfare. For instance, under capitalism, the introduction of new technologies in production is based on the criterion of cost minimization. Hence the development of work activities, and the concomitant requisites

Socialist Revolution, I (May–June 1970), 13–43; also in the *Review of Radical Political Economics,* II (Summer 1970), 43–73.

for adequate work performance, are independent from criteria for welfare-conducive individual development. I.e., there is an a priori tendency for the criteria of individual development and capacity for individual role performance to diverge. A "divergence" of this type becomes a "trade-off" through the operation of two mechanisms. First, the development of a particular pattern of capacities requires an outlay of time, energy, and resources, all of which are limited. Second, those capacities relevant to instrumental role performance may, in themselves, be incompatible with aspects of individual development in welfare-relevant directions. Thus the development of individual initiative, originality, and spontaneity may be generally incompatible with work activities characterized by hierarchical control, precise and impersonal work relations, and rigidly cognitive modes of relational response to problem solution.[1]

A similar argument obtains in the case of the relationship between motivation for performance and individual development. First, the cathexis of external reward for adequate role performance requires that individual capacities be developed that capitalize on the relational and instrumental attributes of this reward. Second, the intrinsic value of the role activity is a function of the individual preference structure, and hence depends on his/her pattern of individual development. Thus the individual whose capacity to relate to a natural environment is highly developed might find the "cost" of assuming an urban work role in a dirty factory, or a fluorescent office in a polluted city, unacceptably high. Similarly, the individual capable of high-level sustained motivation in a situation where neither work process nor the goal of his work activity have intrinsic subjective value (i.e., the alienated individual)[2] is unlikely to be "process-oriented" as opposed to "outcome-oriented" in his activities and interpersonal relations. In a larger setting, it is required that individual capacities conform to activities that use those unit-objects in social abundance.[3] Thus some types of affective, aesthetic, and spiritual development are precluded in capitalist society, where central activities must, for the preservation and smooth development of the system, be mediated by high-level circulation of marketable commodities. A modern capitalist society could not support a majority of puritans, saints, psychedelics, or

1. Gintis, "Education, Technology, and the Characteristics of Worker Productivity," *op. cit.*; Max Weber, "On Bureaucracy," Hans Gerth and C. W. Mills, eds., *From Max Weber: Essays in Sociology* (Oxford University Press, 1958).

2. Gintis, "New Working Class and Revolutionary Youth," *op. cit.*

3. Gintis, "Welfare Theory and the Economics of Education," unpublished, June 1971. Available from the author upon request.

yogis. Irrespective of their *capacities* for adequate role performance, *motivation* through the cathexis of the reward structure would be lacking.

V. Structural Operation: Associative, Cybernetic, and Institutional Patterning

The previous section presented a *functional* analysis of the relation between social organization and individual development. This analysis ignores the actual *social mechanisms* insuring the maintenance of the functional relations. We now introduce three structural mechanisms, "associative," "cybernetic," and "institutional," important in reproducing functional patterns of individual development. Further, corresponding to our shift from functional to structural analysis, the question around which the following sections are organized will change from "How must social structure delimit individual development?" to "How does social organization pattern individual development to its needs?"

Associative patterning describes the ways in which the individual develops capacities for deriving welfare from "alternative" activities, directly through the pattern of activities and social relations available, and hence into which he/she enters, in his/her daily life.[4] Thus the "givenness" of the complex of available unit-objects patterns the development of individual capacities, and hence individual preference structures, in a particularly direct manner. In terms of unit-objects in their relational modality, this phenomenon is pervasive to the point of crystallizing the general way the individual perceives his/her world and views his/her own potentials. Thus the way in which we develop the capacity to relate to a physical environment depends in part on our actual day-to-day process of relating to the *particular* environment with which we come into contact. The relative values we place on the gamut of *possible, feasible, alternative environments* — i.e., what the term "environment" *means* to us — is regulated by our experience with our given environment. While some physical environments are superior to others in the sense of being more "welfare-conducive" — given full development of relational capacities in the relevant directions — an individual will develop his capacities *in fact* through the process of relating to his/her *actual* environment, so that the subjective and

4. P. E. Breer and E. Locke, *Task Experience as a Source of Attitudes* (Homewood, Ill.: Irwin, 1965); Karl Marx, *Economic and Philosophical Manuscripts*, Dirk Struick, ed. (New York: New World, 1959) pp. 106–27; Parsons, *The Social System,* pp. 49–55.

objective evaluations diverge. Similarly, the way in which the individual develops capacities to relate to other individuals depends in part on his/her *actual* relations; i.e., he/she develops *through* social relations with individuals who, as unit-objects, have particular attributes relevant to his/her welfare.

Associative patterning operates differently in the case of objects in instrumental modality. For instance, while work activities may be considered purely instrumental to "earning money," nevertheless work has a *major* and *direct* effect on the pattern of individual development. E.g., that a particular set of work activities is "brutalizing" or "alienating" does not mean merely that it has low immediate welfare value. It means as well that individuals serving in these positions undergo detrimental patterns of individual development. Similarly, the pattern of available commodities plays a direct role in determining the pattern of individual preferences and capacities. For instance, the particular way in which individual activities are mediated by commodities in the individual's experience determines the welfare he/she derives from their use. Thus, referring again to our trivial example, the "utility" of cotton shirts to their habitual user may be the same as that of silk shirts to their corresponding habitual user. Finally, we note that interpersonal relations are regulated by role behavior. As social unit-objects instrumental to the activity of "relating to others," these roles themselves pattern individual development. Thus if expected role behavior between "strangers in the street" is "indifference" or "hostility," individuals will develop differently than if the mutual expectation is "symbolic exchange of valued objects." This type of associative patterning is especially important with respect to economic activity, in the relations among workers, between employer and employee, between producer and consumer, and among consumers.[5]

But capacity development does not result incidentally from the individual's *blind pursuit* of immediate goals through available unit-objects. In fact, individuals *regularly* and *intentionally* devote quantities of time, energy, and resources toward the active development of certain capacities. Moreover, the path of development chosen depends on the pattern of availability of *alternative sets of unit-objects*. This relation provides the basis for a second central mechanism in the social patterning of individual development, "cybernetic patterning."

In its crudest form, this observation is only a weak extension of

5. Veblen, *Theory of the Leisure Class,* pp. 60–80.

the principle of associative patterning. Thus, just as one develops modes of response to a physical environment to which one relates, or through the actual *performance* of the work activity, so will one devote resources toward the development of these modes of response, with a view toward the pattern of physical environments, or the pattern of work activities, available. A simple refinement of the concept of "availability" results, however, in a proposition of the very *deepest* importance in linking social organization to individual development. This refinement consists in noting that unit-objects are not simply "available" or "unavailable." Rather, they are available *only in the form of alternative "feasible bundles" to the individual*, only to a greater or lesser extent, and at greater or lesser "cost." Thus only certain given combinations of environment, material goods and services, cultural forms, and types of social relationships are "open" to the individual, and the pattern of availability is *a product of social organization.*

Now clearly, individuals will devote resources to the development of individual capacities relevant to only *one* of these feasible sets (abstracting from uncertainty) and hence *the way society regulates patterns of availability will influence the path of individual development.* In particular, some types of unit-objects may be rendered available only through the drastic reduction in other essential or desirable unit-objects. Hence the capacity to relate to or to use this unit-object will not be developed.

Moreover, a society may functionally link the availability of a particular bundle of unit-objects to a path of individual development. This is the core of cybernetic patterning. For any society so organizes the availability of bundles of unit-objects in such a manner that individuals *choose* to develop those capacities requisite to adequate staffing and performance of crucial roles. For example, the "market in labor," and the separation of the worker from his/her means of production: Here, in the first instance, the availability of alternative bundles of marketable goods and services depends on the market price of his/her labor power; the price of his/her labor power depends in turn on the particular way in which he/she has developed particular capacities for role performance in work activities; and last, these alternative capacities are evaluated on the market in terms of contribution to material output. Thus is the set of alternative feasible bundles of unit-objects open to the individual cybernetically patterned by aspects of "socially necessary" individual development.

The relative rewards for various types of work activities are

not random, nor are they reflections of technological necessity. Rather, these rewards depend on the "value" of staffing particular role positions to the capitalist in a bureaucratic work environment organized "rationally" around the criteria of control maintenance and profit maximization. Thus patterns of individual development reflect the needs of "efficient" production within a particular set of class relations. But the neoclassical justification of these class relations is based on the "assumption of fixed preferences."

Interestingly, neither associative patterning — which we have borrowed and generalized from Marxist theory — nor cybernetic patterning — which represents an obvious extension of neoclassical choice theory — is found in the sociological literature on preference formation. Rather, sociologists emphasize the direct social mechanisms — family, school, and media — through which values and goal orientations are internalized. This institutional patterning is important for economic theory. We may cite the importance of "belief systems" relating the functionality of material goods in maintaining allegiance to a system of industrial "affluence," [6] and the quality of "esteem" as internalized by capitalist man/woman in promoting consumption.[7] We also note that the operation of labor markets in capitalist society requires a quite specific "orientation" of the worker to a work-leisure choice, an orientation that can be transmitted in a stable social manner through institutional patterning.[8] In general, cybernetic patterning, in evincing types of individual development necessary to staff essential work activities, depends on the primacy of consideration of "economic reward" in planning individual development, and this primacy requires in turn prior institutionalization of patterns of "Homo Economicus" mentality.

VI. Recapitulation

This completes our presentation of analytical tools. They contain all the elements of a joint positive-normative "equilibrium" treatment of economic theory. Thus a correct extension of neoclassical welfare economics recognizes that individual welfare depends on the unit-objects available, as well as on his/her pattern of individual development; that unit-objects occur in alternative "fea-

6. Gintis, "New Working Class and Revolutionary Youth."

7. Gintis, "Commodity Fetishism and Irrational Production," Harvard Institute for Economic Research Paper No. 121, unpublished, May 1970; Veblen, *Theory of the Leisure Class,* pp. 21–32.

8. Kemper Fullerton, "The Meaning of the Weber Thesis," in Robert W. Green, ed., *Protestantism and Capitalism* (Boston: D. C. Heath and Co., 1959).

sible" bundles, wherein the limits of feasibility cross the boundary of societal subsystems in such a manner as physical, personological, social, and cultural unit-objects are interdependent; and that changes in the structure of economic institutions produce changes in the patterns of feasible unit-objects and the constellation of compatible paths of individual development.

Neoclassical theory, however, takes as given for analysis — as a *prerequisite* of analysis — precisely what must be one of the *outcomes* of an analysis that is more than a simple apology for existing relations of production. It thus turns on their head and exhibits in inverted form all true social relationships. Indeed, it is capitalism that is "given," and the so-called "fundamental data" of neoclassical theory that are to be determined from it. Capitalism did not arise through a rational act of social engineering, "gearing" economic institutions to "individual needs," but rather through the power of capital and the power of capitalists and their bureaucratic servants derived from it, in reorganizing all aspects of society in accordance with its internal needs and interests.[9]

Neoclassical ideology follows from the abstraction from fundamental interrelations between economic and other social phenomena. This can best be seen in terms of Figure I, a schema of the welfare-relevant aspects of social organization. Here, arrows A through I depict directions of causality, as discussed earlier. Neoclassical theory admits arrows A through C alone. It recognizes that the general outlines of personality organization and preference structure result from the institutional patterning of culture. The task of the economist is accordingly the implementation of arrow B: Economic institutions are to be so organized as best to satisfy and reflect the "needs" generated on the level of personality systems. The result of this organization is an alteration in the set of available unit-objects in the form of marketable goods and services; this is represented by arrow C.

Thus neoclassical theory abstracts: From the effect of economic organization on social institutions functionally supportive of the economy (arrow D); from the effect of the social system directly on personality systems through associative and cybernetic patterning (arrow F); indirectly through its effect on the cultural system and hence institutional patterning (arrows E and A), and indirectly through its effect on physical-organic systems, followed by associa-

9. Karl Marx, *Capital,* Vol. I (New York: Modern Library, 1906), pp. 784–837.

tive and cybernetic patterning (arrows G and H); and last, from the highly crucial fact that individual development and the system of personalities are the same entities viewed in terms of distinct modalities (arrow I).

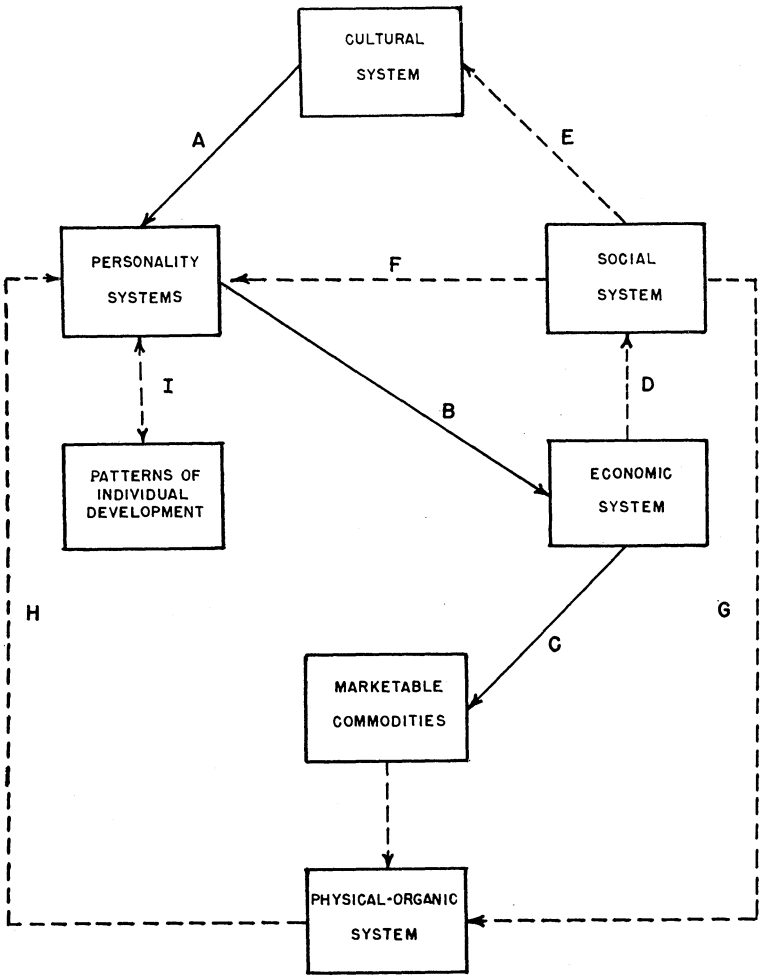

FIGURE I

We shall now sketch some concrete implications of this schema, focusing on the neoclassical treatment of work activities, technology, education, and commodity markets.

VII. Work

Neoclassical theory takes as given individual "tastes" for alternative work activities. From this, according to the criterion of Pareto optimality, follows the desirability of two basic institutions of capitalist society. First, determining the pattern of work activities according to the criterion of profit maximization insures the "efficient allocation" of factors of production on the firm level. Second, the free market in labor, according to which the reward for undertaking particular work activities is determined by supply and demand, insures the "efficient allocation" of labor in different firms, sectors, and regions.

This procedure fails through its abstraction from important causal relations. First, the smooth and free operation of this type of decision mechanism, according to which the "definition" of work activities and their relative "social value" reflect merely their instrumental contribution to marketable output, requires a similarly instrumental view of work activities on the part of individuals. That is, the harmonious operation of this system demands a cultural system (arrow E) in which "statuses" of alternative jobs are arranged according to income and degree of hierarchical control, largely independent of the value of the corresponding work activities in their instrumental and relational modalities, and in particular, in their contribution to individual development. The alternative, the individual evaluation of work activities according to intrinsic criteria, leads to the workers' demand for control over their determination i.e., to the demise of the free market in labor and capitalist control of the work process.[1] Second, the individual's "preferences over alternative work activities" are affected through institutional patterning (arrow E) in an educational system wherein social relations mirror the alienated relations of capitalist production.[2] Thus the educational system acquires its form and structure as *functionally supportive* of the economic system. Third, work operates in the associative patterning (arrow F) of individual development. That is, the pattern of work activities is a basic determinant of individual development. Thus work activities may induce welfare-conducive capacities through the pattern of challenges and demands that they impose on the individual and the outlets for creative initiative and individual control that they present. Or, on the other hand, they may

1. John Kenneth Galbraith, *The New Industrial State* (New York: Signet, 1967), pp. 187–230.

2. Gintis, "Education, Technology, and the Characteristics of Worker Productivity"; Herbert Gintis, "Towards a Political Economy of Education," *Harvard Educational Review* (Feb. 1972).

brutalize the individual. However, the actual pattern of work activities chosen will depend only on its relative contribution to efficient management.[3] Fourth, individual development and the "preferences for alternative work activities" are influenced by cybernetic patterning (arrow F). Not only will individuals choose their particular path of individual development on the basis of the existing pattern of work activities, but the relative rewards of different paths of development of motivations and capacities for performance in work activities are themselves determined by their relative contribution to material output.

Here we note most clearly the "circular" nature of neoclassical theory. For the actual pattern of individual development depends on a constellation of "relative wages" themselves justified by the assumption of fixed preferences.[4]

VIII. Technology

Neoclassical welfare economics takes individual preferences over alternative work activities as given. On the basis of the cri-

3. Note that it is *not* an objection to neoclassical theory that it overlooks "work activities" as unit-objects in instrumental and relational modality. Neoclassical theory, as propounded by modern exponents, assumes each worker is able to choose from a wide array the particular activity that maximizes his (exogenous) utility function, a utility function that depends on the quality of work, its intensity and duration, and the material reward that it offers.

Thus in neoclassical theory the issue of who *controls* production does not arise. Workers can hire capital as easily as capitalists can hire labor. This is, of course, factually incorrect.

This is important in understanding why jobs in capitalist society offer so little in the way of intrinsic reward, and hence lead to the common conception of work as a "disutility" through associative patterning. For it is central that the organization of production has as one of its functions *the production and reaffirmation in the worker of his powerlessness and alienation from intrinsic satisfaction.* Capitalist development, through bureaucratic order and hierarchical authority in production, limits work activities to those that (a) permit an essential role for capitalists and their managerial representatives; (b) facilitate supervision and discipline of workers; (c) allow for flexible control from the top; and (d) limit, through the division of tasks, the initiative of workers of "safe" levels. (Stephen Marglin, "What Do Bosses Do?" unpublished manuscript, Harvard University, Feb. 1971; Andre Gorz, *Strategy for Labor*; Boston: Beacon Press, 1967, pp. 35–54; Herbert Gintis and Samuel Bowles, "IQ and the U.S. Class Structure," unpublished manuscript, Harvard University, 1972, Section V.)

In short, while neoclassical welfare economics may take preferences as given, the actual organization of the firm must take their development and stabilization as a structural goal. Hence the "efficiency" of the profit-maximizing solution is relative to the given pattern of worker preferences, and abstract cost minimization is only one element in the determination of work roles. In this situation, even the weak statement that preferences over work activities are reflected in the supply price of labor is substantially false.

4. This argument is spelled out in detail in Gintis, "Welfare Theory and the Economics of Education."

terion of Pareto optimality, it justifies the development of new technologies and their diffusion according to managerial rationality on the firm level.[5] This mechanism insures that the cumulative development of scientific techniques of production takes a form most conducive not to individual welfare in general, but to maximal marketable, controllable product. Two centuries of development of technology according to the criteria of managerial rationality have led to an imposing and admirable machine of domination and manipulation.[6] The choice of inhuman criteria — and cost minimization and the maintenance of hierarchical productive control are inhuman in the strict sense of failing to conform to reasonable standards of human development — has simply created a technology and a body of technical culture that must be radically redirected.[7]

But why is the criterion of cost minimization mistaken? Because the progressive integration of new technologies is coordinate with the progressive development of new sets of work activities. Insofar as work forms the basis of social life, the dynamic development of capitalist society in the most general sense depends on the criterion of technological diffusion. In particular, the development of new technologies, by altering the set of available work activities and the way in which they cybernetically pattern individual development, influences the pattern of preference structures and the paths of individual development actually followed (arrow F).

IX. Education

The educational system is functionally supportive (arrow D) of the economic system. Only certain paths of individual development are compatible with adequate motivation and capacities for role performance in the work activities available in the economy. Educational institutions provide these motivations and capacities. As a result, the decision on the part of the individual to embrace a certain level of educational attainment is a decision to undertake a particular pattern of individual development.

5. By "managerial rationality," we mean cost minimization compatible with maintenance of secure hierarchical authority. See note 3, preceding.

6. By "technology" we mean not merely physical technology, but the organizational forms that govern the relations between those entering into production and regulate the application and diffusion of physical technology.

7. The theoretical point here is, however, independent of our assessment of the limits of variability in technological development (i.e., of the extent to which significantly different paths of technical change potentially exist) and of our assessment of the welfare impact of current forms of social technology. Even the rate of development of given forms, or the order in which social and purely technical innovations occur, can have impact on the development of preferences.

In the individual's youth, this decision is based on compliance with legal regulations and the institutionalized system of family norms (institutional patterning). The school system assumes even at this level a form compatible with the future work and consumption roles of individuals.[8] When older, the individual will base this decision more or less directly on the rewards in terms of money and status derving from greater educational attainment. Indeed, one of the most dramatic manifestations of "Homo Economicus" under capitalism is that the amount of educational attainment can be adequately explained by considering schooling as a pure investment.[9] Thus the educational system is an instrument in the cybernetic patterning of individual development: the market in labor uses the educational system both as a means of inducing paths of individual development compatible with the motivations and capacities necessary in an alienated and bureaucratic work environment, and as a reference system in terms of which feasible bundles of unit-objects available to the individual can be concretely linked to a particular pattern of psychic development.[1]

The neoclassical treatment of education begins with the assumption of fixed preferences. On this basis, it recognizes the validity of the determination of the monetary returns to education according to efficiency criteria as embodied in market institutions. From the same basic assumption it analyzes the "proper" amount of education for individuals, as well as for society as a whole, in terms of benefit-cost analysis. Moreover, it discusses the "quality" of schooling in terms of its contribution to individual income. The fallacy, of course, is the basing of all recommendations concerning education on the postulate of fixed preferences, in a situation where the educational system is a central instrument in the formation of preferences.

8. Gintis, "Education, Technology, and the Characteristics of Worker Productivity"; Gintis, "Towards a Political Economy of Education."

9. Theodore Schultz, *The Economic Value of Education* (New York: Columbia University Press, 1963), pp. x–xii.

1. This process of cybernetic patterning in fact induces paths of individual development inimical to individual welfare. The determination of work activities and technology through criteria only marginally related to human needs insures the divergence of "economically productive" personality traits, and "welfare-conducive" personality traits. Moreover, that the worker must operate efficiently in a system in which he is alienated from both work process and product requires that the social relations of education mirror the work place, in the sense that students must be motivated primarily by the *external reward* for adequate behavior, as opposed to the intrinsic value of the activity of learning, or the personal value of the goal — the possession of knowledge, This restriction limits the types of individual development possible through schooling.

X. Consumer Sovereignty

One of the least questioned assumptions of neoclassical theory is that what is produced should mirror manifest individual preferences. This is the principle of "consumer sovereignty." Of course, it is increasingly recognized, as a matter of fact, that the economist's principle is not very descriptive of capitalist society.[2] But it is not commonly recognized that this principle is not uniformly applicable, even in its own right. For it is based on the assumption of fixed preferences, while in fact *individual preferences change through associative patterning through the very act of consuming, and develop according to cybernetic patterning, in response to the pattern of available commodities.*[3] In particular, unit-objects in relational or instrumental modalities affect individual development, so that the partial abrogation of consumer sovereignty in favor of "producer sovereignty" is warranted in such a case as that where the creative activity of the worker, developed in his area of expertise beyond that of the average consumer, results in a product leading to the progressive development of the relevant functional capacities in the consumer.[4] Indeed, we might go so far as to identify "creative production" with the development of products whose attributes lead to development of welfare-conducive capacities on the part of the consumer.

For example, any adequate architecture must base its design in part on what individuals *in fact* find beautiful. But creative architecture must also ask what individuals *should in fact* find beautiful, and thereby develop this perceptive faculty in individuals. In essence, such architecture cannot subsume its principles of design to the perceptual or aesthetic shortcomings of the community, and still contribute to the *aesthetic* growth of this community. This example extends to all areas in which commodities can conceivably be subject to craft production. Now, profit maximization implies not only the determination of the attributes of work activities according to efficiency criteria, but also the determination of the attributes of goods produced, and in particular their aesthetic and developmental qualities, in terms of their salability. This exercise of capitalist control operates to the detriment of worker and consumer alike. For it eliminates the creative element in the produc-

2. Galbraith, *The New Industrial State*, pp. 208–20.
3. Gintis, "Welfare Theory and the Economics of Education."
4. Thorstein Veblen, *The Instinct of Workmanship* (New York: Augustus M. Kelley, 1964), pp. 1–37.

tive activity of workers, and by pandering to the existing tastes of the consumer — or worse, to tastes created through psychic manipulation — it eliminates the potential contribution of commodities to the positive development of consumer preferences.

XI. Conclusion

Neoclassical theory accepts a certain model of political structure [5] and justifies the major economic institutions of capitalism as contributing maximally to welfare, except where certain imperfections and externalities require state intervention.[6] Our analysis refutes this justification. When neoclassical welfare theory is extended to a reasonable model of welfare, the usual arguments no longer hold.

Of course, one might object that its conclusions are valid, though its method of proof is incorrect. But I have argued that the extended version of welfare theory would *not* give the same conclusions.[7] Thus the proper role for market mechanisms and an acceptable alternative to capitalist control of production become problematic.

Given the formal validity of our extended welfare model, we are tempted to enlist its aid in treating these problems. Unfortunately its usefulness is severely limited. It abstracts from the aggregation of individual welfares (the role and power of the state and the applicability of the social welfare function concept).[8] Moreover, the extended welfare model is *unoperational.* On the empirical level, we cannot hope to know, given the present state of social sciences, the impact of alternative institutions on individual development, and of the latter on individual welfare. On the normative level, the extended welfare model requires a social welfare function that *evaluates* alternative preference structures. Although this

5. The most important assumption concerning the nature of the state is that its own structure of preferences is independent from the particular form of economic institutions. For other purposes, it is also asserted that the state preference function (the so-called social welfare function) reflects in specific ways the preferences of individuals. (Gintis,, "Alienation and Power," pp. 28–43.)

6. Neoclassical theory justifies capitalist control of production only indirectly, by arguing that whoever "controls" production should operate on the basis of profit maximization in a situation of perfect markets and adequate competition. Since capitalists do maximize profits (it is asserted), capitalist control represents an adequate solution.

7. This argument is only sketchily treated in this paper. Much more work needs to be done in this area. For an extended theoretical discussion of some aspects of this problem, see Gintis, "welfare theory," note 3, p. 583.

8. Herbert Gintis, "Consumer Behavior and the Concept of Sovereignty," *American Economic Review* (May 1972).

corresponds to the rather innocuous treatment of "merit wants" in neoclassical theory, its widespread application would be found intolerable on political grounds by many — the author included. A welfare theory treating the relation between positive and normative judgments in an entirely different manner is needed.

Many who otherwise agree with the analysis herein, will nevertheless continue to embrace neoclassical welfare theory — perhaps with minor emendations — for lack of a practical alternative. The more theoretically minded may wish to attempt an extension of this theory by introducing further parameters, such as the learning process, or interdependence of modes of production and preference structures, so as to enlarge the endogenous components of the formal model. Some of the tools here outlined should prove helpful to them.

But any sincere attempt both to be practical and to account correctly for these endogenous components will, I suspect, take the researcher outside the framework both of positive and normative economic analysis in their neoclassical form, and of capitalist and state socialist policy instruments in general. In conclusion, I shall provide a few examples of this dynamic.

First, a normative treatment of the firm that takes preferences as endogenous might begin with (a) a choice set of available technologies, (b) a choice set of corresponding work role configurations, (c) a number of individuals (workers, technicians, managers, etc.) with preference structures compatible with at least one of these work role configurations, and (d) a choice set of available nonhuman production inputs. The outputs of the production process then include (a) the quantity and quality of goods or services generated, (b) newly expanded choice sets of available technologies and work role configurations, (c) a *new* set of individual preference structures, altered through participation in production, and (d) a distribution of factor rewards.

The economic problem in this situation is the determination of a set of institutional structures mediating the relations among those involved in and affected by production, leading not only to this expanded production possibilities frontier, but also to an optimal point (in terms of the interest groups involved) on it. These structures are inherently political (i.e., they concern the way in which the preferences of individuals or organized groups interact in the determination of policy within the enterprise), and their analysis moves us from traditional economic theory to normative political science. The economic model builder can avoid this transgression

by positing an exogenously given enterprise objective-function, but this strips the analysis of any but formal significance.[9]

Such an extended theory of the firm also provides a second example of a formally correct welfare analysis trespassing basic boundary definitions of neoclassical theory — this time in the area of positive science. A purely mathematical treatment of the extended model of the firm described above would conclude that, in assuming a profit-maximizing objective function, those who control production must include in their calculations the effects of alternative technologies and work role choices on the preference structures of those involved in production. Otherwise — to take an extreme case — the personality structures of workers in period two may be incompatible with *any* of the technologies and work role configurations available in this period! More generally, preference changes resulting from new forms of work organization may be incompatible with the abiding political structure of the enterprise — the "bearer" of the profit-maximizing objective function. For instance, the forms of work organization increasing the breadth of control of workers may increase their desire for control, hence threatening bureaucratic order.[1]

This model exhibits a logical divergence between technical efficiency and long-run cost minimization,[2] thus raising the factual question as to whether concrete technologies and work roles are economically efficient or merely opposite to the political and social structure of the capitalist enterprise.[3] In this way economic analysis becomes formally dialectical, by admitting the central historical contradiction of Marxist theory: the social relations of the enterprise may act as an impediment to the progressive development and diffusion

9. The careful reader will note that the inclusion of endogenous preferences and technologies in the theory of the firm forces a model extension theoretically equivalent to that imposed on normative general equilibrium theory by the admission of externalities and social goods. The theoretical inadequacy of the latter's traditional solution (see preceding note 5) and Gintis, "Consumer Behavior and the Concept of Sovereignty" has been largely obscured by the *prima facie* acceptability of a formally democratic political framework in the governmental process as the "bearer" of the social welfare function. No such practical obfuscation is possible in the theory of the firm, as the present political structure of the firm (bureaucratic order and hierarchical control) is totalitarian in the pure political sense.

1. Herbert Gintis, "Power and Alienation," in James Weaver, ed., *Readings in Political Economy* (Allyn and Bacon, forthcoming, 1972).

2. Indeed, sociological theory lays stress on *pattern maintenance* (in this case reproduction of the firm) as well as *goal orientation* (here, profits and growth) among the decision criteria guiding the historical development of any integral social subsystem (Talcott Parsons and Neil Smelser, *Economy and Society*; Glencoe: Free Press, 1957, Ch. 3).

3. Marglin, "What Do Bosses Do?"

of potential forces of production.[4] The efficiency theory of the firm effectively rules out such a possibility, but an extended welfare paradigm might place the assessment of a similar condition in advanced industrial societies in the foreground, with an accompanying reorientation in the theory of industrial organization.

But our extended welfare paradigm urges the use of dialectical tools in a more immediate sense. For structural-functional analysis cannot account for major aspects of social development. For instance, functional theory might conclude that the social relations of education reflect in essential respects the structure of production (see Section IX). But the educational system does not always adequately perform its allotted function. The failures of the educational system in particular historical periods — as well as the "dysfunctional" consciousness resulting therefrom — cannot be placed into coherent perspective through structural-functional analysis. A scientific approach requires a dialectical treatment of the generation of contradictions in education within a functionally self-reproducing social system.[5] A similar treatment is required in the case of all social subsystems functionally supportive of the economy.[6]

These are only a few — and among the more obvious — ways that an expanded welfare theory takes us outside traditional economic analysis. It is terribly *inelegant* (compared to the Walrasian system), but correspondingly more relevant in posing the vital questions of the day. It is *impractical* as a policy instrument. But this in fact is a point strongly in its favor. For an extended welfare paradigm takes the state itself as functionally interdependent with the economy, and in the first instance a subject for positive analysis, not moral or strategic advice. The outcome of such a positive analysis would likely indicate that the state behaves in such a manner not as to reflect general welfare, or even the direct interests of any particular group, but rather as to reproduce and aid the smooth development of the social system, as determined by the operation of its core economic institutions.[7]

Thus an extended welfare paradigm is *threatening* in a very personal sense to the well-socialized economist. For it veritably

4. Karl Marx, *Critique of Political Economy* (Chicago: Kerr, 1904).

5. Samuel Bowles, "Contradictions in Higher Education in the United States," in Richard C. Edwards, Michael Reich, and Thomas Weisskopf, eds., *The Capitalist System* (Englewood Cliffs, N.J.: Prentice-Hall, 1971), pp. 491–503; Gintis, "New Working Class and Revolutionary Youth" and "Contreculture et Militantisme Politique"; Gorz, *Strategy for Labor,* Ch. 5.

6. Gintis, "Power and Alienation," in Weaver, *op. cit.*

7. *Ibid.* Nicos Poulanzes, *Pouvoir Politique et Classes Sociales* (Paris: Maspero, 1968).

forces him/her to take the stance of social outlaw in any situation where the advancement of social welfare comes into conflict with the reproduction of the social system.[8] It is in this sense that the extended welfare paradigm can be termed "radical." For the structural-functional extension of the general equilibrium system to include the state logically closes the model — there is no one the welfare economist can give advice to! Welfare theory may become historically relevant only in providing concrete personal, political, and social strategies in the interstices of society — i.e., where nonfunctional consciousness has arisen through the appearances of contradictions in the social fabric.

The inelegance, impracticality, and threatening nature of an extended economic paradigm, as well as its demand for a far broader range of expertise on the part of the economist, will deter many from the task of its construction. I suspect, however, that many more will take this step, and indeed find it personally liberating and intellectually fulfilling.

HARVARD UNIVERSITY

8. I would hold that this is the case where questions of integral community, social equality, worker control, unalienated production, liberating education, and the development of a welfare-conducive physical environment are concerned.