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Atomism, Identity Criteria, and Impossibility Logic

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It is arguable that there is nothing more fundamental to the Neoclassical view of economic rationality than methodological or atomistic individualism. The idea that individuals are fully autonomous beings in the sense of possessing independent choice sets seems to necessarily underlie the notion of economic rationality in that the idea of determinate, rational choice essentially depends on the notion that an individual can restrict him or herself to own private concerns and objectives in a socially non-interactive manner. Thus, that rational choice is central to the entire scarcity logic of optimization and efficiency means that this logic also depends upon the assumption of atomistic individualism. Of course, it is by no means obvious that individual choice sets are or should be regarded as autonomous and independent (see e.g., Lesnoff, 1974, pp.75-108), and much heterodox economic theory takes this as a fundamental point of divergence from Neoclassicism. Yet in their desire to address the topics of efficiency and optimal economic policy, mainstream economists neglect these issues, too often, perhaps, coming as a result to regard the atomistic character of the economic agent as necessary and indisputable.

Critics of Neoclassicism have often argued that empirical evidence and experimental studies strongly suggest that individuals do not behave as atomistic, rational optimizers (e.g., Kahneman et al, 1986). In this short paper, it is further argued that atomistic individualism possesses certain fundamental logical problems, the existence of which would lend support to the empirical evidence and experimental results of Neoclassicism's critics. In essence, the argument here questions whether it can reasonably be said that individual preference orderings are indeed truly autonomous, and thus properly primitive in Neoclassical economic analysis. Alternatively, is this key doctrine of neoclassicism – termed by Boulding the "Immaculate Conception of the Indifference Curve" (1969, p. 2) – truly a reasonable one, or might it not rather be the case, as argued by most heterodox economists and probably the great majority of social scientists,

that individual preferences are in significant degree socially influenced?

I propose to argue that this is the case by reproducing Marx's stance towards Hegel in here turning Arrow on his head by arguing that the – I believe – right-side-up view of the world is one in which individual preferences are socially influenced in significant degree. Arrow (1963 [1951]) presented an impossibility theorem to demonstrate that were one to take individual preferences (plausibly characterized) as given, then one could not aggregate those preferences to produce a social choice function. On the line of thinking in this paper, it is asserted that were one to take social preferences as given, then one cannot go on to disaggregate social preferences to produce autonomous choice functions. On this view, it is social preference orderings which need to be taken as conceptually primitive, rather than individual preference orderings, and, in effect, something on the order of a converse impossibility theorem or logic implies that it is autonomous choice rather than social choice, that is without justification.

More is involved in this reversal of reasoning, however, than simply adopting another starting point. The issue here is not simply whether truly autonomous preferences cannot be inferred from social preferences, but whether the very idea of autonomous preferences is itself ultimately flawed. Accordingly, in order to flesh out the outlines of a converse impossibility logic, and at the same time to argue that it is the only acceptable impossibility logic available to us, I will argue that preferences are necessarily social in a particularly important sense. I will argue this, first, by assuming that preferences are autonomous, and by then showing that this results in something of a contradiction. Briefly, though autonomous preferences presuppose the distinct individual identities of those economic agents to whom they belong, the assumption of autonomous preferences, it can be shown, makes it impossible to persuasively distinguish or individuate distinct economic agents. Second, I will then argue that, given a plausible characterization of social

preferences, a converse impossibility logic can be set forth which concludes that not only is it not possible to infer autonomous preferences from social preferences, but also that, given the questionable nature of the former, only the latter can be thought coherent. Preferences, then, must in an important sense be social, and indeed that this is so is essential to any meaningful characterization of economic agents as distinct, identifiable individuals.

Autonomous Preferences and Individual Identity Criteria

A necessary criterion for the individuation of an agent of any kind is that one be able to trace or track that selfsame individual through changes that might conceivably terminate or somehow otherwise bring into question that individual's distinct existence (Parfit, 1984, pp. 201ff). In regard to the Neoclassical economic agent, this means that, in order to be able to say with confidence that one has successfully distinguished a distinct individual, one must be able to say that through a process of change that individual's preferences remain the preferences of that individual alone, or that that individual's preferences have not been learned, adopted, or socially inculcated. That is to say, it cannot be the case on the Neoclassical view that the preferences of individuals are interdependent in important ways, so that these individuals are themselves non-independent in taste and therefore choice.

Neoclassical authors, of course, allow for consumption externalities where one individual's tastes influence another's. However, the logic of this analysis also indicates (as does the very term itself) that externalities are adjustments in individual taste that, at the margin so to speak, leave unaffected the essential integrity of the individual's autonomous structure of taste. That is, the general presumption is that the great bulk of the arguments across different individuals' utility functions are non-interactive, so that the nominal independence of individuals' different utility functions effectively captures the supposed actual independence of the great majority of their respective arguments (for a standard treatment, see Henderson and Quandt, 1980, pp. 296-8). This makes the theory of external effects in consumption essentially an *ad hoc* accompaniment to the basic analysis of consumer taste that most theorists thus feel entitled to ignore (though see Leibenstein, 1950).

Consequently, the theory of individual

identity that underlies the neoclassical view of the atomistic economic agent is that individuals are distinguished and re-identifiable through change by the continuity of each individual's characteristically private tastes and preferences. Such a theory goes back to Hume's skeptical view (1978) that the self can be thought no more than a bundle of preferences. Thus, on the view that taste is exogenous, individuals cannot have or come to have each other's preferences, so that whatever preferences the individual has over time must *de facto* be those of that individual alone. Note, however, that this argument – effectively an argument by default – does not establish a continuity of individual preference. Though it asserts that an individual can never have another's preferences, it does not show how the preferences an individual happens to have are specifically those of that same individual.

To make this further step, it would be necessary to somehow show that an individual's preferences over time possessed a continuity in structure that could only be associated with that particular individual alone. Individual identity would then be a matter of a singular continuity in an integrated set of preferences. However, that an individual's preferences are regarded as private in Neoclassical theory means that their structure must essentially be opaque to external observers, since were it possible to say how an individual's tastes were structured, then it would also be possible to meaningfully compare different individuals' taste or preference structures. This in turn would undermine the idea that tastes or preferences were fundamentally private, indeed even perhaps suggest that different individuals shared patterns of taste or preference. Thus, unless one were prepared to assume on principle that each individual's structure of taste was necessarily distinct from every other individual's, one could never rule out the possibility that similarities in taste implied the existence of shared tastes. Of course, to assume that individual structures of taste are necessarily distinct, is merely to assume that individuals are themselves distinct, that is, to assume the desired conclusion that individuals possess distinct identities.

Neoclassical theory, it thus seems, is actually undermined by its characterization of the individuality of economic agents in that its reliance on the privacy of tastes does more to cut-off an elaboration of effective identity criteria than to support such an enterprise. More strongly, Neoclassical theory might even be thought self-

contradictory on this score, in that the very means by which it construes agent individuality in terms of autonomous preferences seem to be incompatible with establishing any reasonable criteria for explaining agent individuality. This all suggests that treating autonomous preferences as primitive in a theory of economic behavior is fundamentally mistaken. In line with the suggestion above, then, I recommend that preferences be thought necessarily social (in a sense yet to be explained), and that the idea that preference are somehow social be taken as primitive in economic theory. From this vantage point, it would then be argued, *contra* Arrow, that there exists a converse impossibility logic, whereby it can be demonstrated that purely autonomous preferences cannot be inferred from our conceptually primitive social preferences.

A Converse Impossibility Logic

To begin, it is fair to say that were one able to claim a personal continuity of taste and preference (such as would be sufficient to establish one's personal identity through a process of change), then one would know how to make use of language and the rules that govern it in such a way that one could consistently refer to one's present tastes and preferences in essentially the same way that one referred to one's past tastes and preferences. To do this, moreover, one would presumably need to be able to say that the reason one was able to use a single term or expression to similarly describe experiences on two different occasions was that there was some single fact or set of facts about each of these experiences that justified describing them each in the same way. From this perspective, a continuity of taste and preference, and the personal identity it would justify, derives from two things: first, that it is factually the case that one's different experiences of having certain tastes and preferences have something in common, and, second, that individuals are able to recognize and say what this common character is.

Wittgenstein, however, in his influential *Philosophical Investigations* (1958) argued that, despite the apparent plausibility of this view, it is difficult to say that individuals use language in the manner suggested. In particular, when one considers an individual's intentions in using a particular term or expression on a given occasion, it never seems possible to agree there exists any unique fact or set of facts about that individual's intention on that occasion that correlates

precisely with a similar fact or set of facts regarding that individual's intention in using that same language on later occasions. Why should this be the case? One answer to this question is that it is simply impossible to establish facts of this particular sort. For something to be accepted as a fact, its subject matter must generally be subject to public scrutiny and examination. But an individual's actual experience of having a given taste or preference is private and unobservable. Therefore, an individual would never be able to establish to the satisfaction of others that his or her private experiences were, as a matter of fact, properly referred to by using certain terms or expressions. As Wittgenstein scholars have come to understand this, there can be no such thing as a truly private language, meaning one where an individual privately applies labels or terms to his or her inner, mental experiences, and so creates a language only he or she can verify is being properly used. Rather, language is, by its very nature, an intersubjective, public affair, and as such precludes there being any facts describing its use in connection with matters that are characteristically private.

From this perspective, the Neoclassical view of the individual becomes highly questionable. That view makes the identity of the autonomous individual depend upon a continuity in private tastes and preferences. Yet the understanding of language in Wittgenstein's *Philosophical Investigations* leaves us with the conclusion that there simply are no facts that derive from an individual's private characterization of his or her mental experiences. Alternatively, to the extent that we can describe an individual's private mental experiences, it must necessarily be the case that we do so in an intersubjective language that necessarily accords a public or social dimension to individuals' characterizations of those experiences. Neoclassicism, then, either cannot constitute individual identity on the terms it supposes – the autonomous nature of taste and preference – or, to have some theory of individuality it must treat preferences and tastes as being socially determined in some significant sense. Here, that sense in which tastes and preferences must be socially determined is connected to the intersubjective nature of language. In effect, the very meanings of the terms and expressions we employ to describe our mental life are socially learned. Thus, though our own experiences always remain our own, their significance and meaning for us is inescapably dependent upon their social interpretation.

A further argument for this conclusion comes from a stronger interpretation of Wittgenstein's claim. Following Kripke's (1982) interpretation of Wittgenstein, Wittgenstein's argument regarding the problem of finding facts that justify the use of same language on different occasions applies no less to public objects than to our private, mental experiences. On this view, to think that it is the re-occurrence of certain facts that tells us when language terms and expressions are properly employed is to mistakenly suppose that the operation of language can be modeled on the principle of induction. Yet the most important and remarkable thing we can say about language is that it is a paradigmatically creative practice in that language users possess the ability to successfully use terms previously employed in entirely new and novel contexts. The induction model of language misses this altogether, and thus misses something very important about the nature of language. Specifically, language is an essentially conventional affair, meaning that its successful use entails a commitment on the part of each individual language-user to a language community's continually on-going determination of meaning. Quite simply, because the context of each expression is always unique, its meaningfulness requires first and foremost an intention to communicate. This implies that the relationship between meaning and intention is normative in the sense that language users seek the meanings that ought to enable their communication with others. The relationship between meaning and intention is not, as the induction model has it, a descriptive one that abstractly pairs meanings and facts.

Contrary to Neoclassicism, then, tastes and preferences are necessarily social. On the first interpretation of Wittgenstein's thinking, preferences and tastes are socially determined in that the language we employ to account for our private mental experiences is socially developed and acquired. On the second interpretation, preferences and tastes possess a social dimension in that any and every use of language presupposes a commitment to communication that requires we treat individuals as first and foremost social beings. Thus, our understanding of both the learning of language and the very practice of communication tell us that individual tastes and preferences are fundamentally social, contrary to the customary view in Neoclassicism that tastes and preferences are autonomous. Further, since this can be taken as a requirement

that social tastes and preferences be thought primitive, that these arguments imply we cannot produce a conception of preferences as autonomous on the order imagined in Neoclassicism tells us that a converse impossibility logic can fairly be said to apply.

Concluding Comment

None of this, it should be emphasized, implies that individuals, individual meanings, individual tastes, or individual choices cannot be distinguished. In fact, an analysis of preference and taste as possessing a social dimension lays important foundations for an adequate theory of individual identity, since the idea that each context of language use is somehow unique implies that individuals may well be distinguished by their own unique histories of language use. While meanings themselves always possess an important element of social determination within a community of language-users, that at the same time each occasion of language use on the part of an individual necessarily involves a unique employment of the common body of meaning suggests that individuals are distinguished by the particular sequential patterns of meaning use they each initiate. Here, I do not attempt to investigate the complex matter of how this historical distinctiveness of expression would make it possible to set out the basis on which one might identify and re-identify individuals through a process of change, since the primary objective of the discussion of a converse impossibility theorem here was to attempt to reverse traditional Neoclassical reasoning on the subject. However, in line with arguments I have previously made concerning the referentiality of language (Davis, 1989), I would suggest, following authors such as Putnam (1973), that just as terms come to be "baptized" at certain points in time, and then retain their initial designations in language communities of heterogeneous language-users by a sort of historical "referential chain," so also individuals might properly be thought distinct and re-identifiable beings in virtue of the continual 're-baptizing' they effect upon themselves in their personal histories of language use.

Finally, whether or not the particular case developed here for a converse impossibility reasoning is persuasive, it seems fair to say that the one general issue which deserves further attention in economics is the issue of agent identity. Ironically, most economists - no doubt

in part on account of comparative static character of neoclassical economic reasoning - do not even recognize, nor much less understand, the nature and importance of the issue. Yet it is elementary that just as the concept of equilibrium needs to be examined in regard to existence, uniqueness, and stability, similar formal matters pertain to use of agent concepts. A fair amount of recent work on the theory of the firm reflects a sensitivity to questions of this sort. Indeed the original fundamental question in the theory of the firm is why firms exist at all, or in the language here, what is it that explains their identity as individual agents through time? Less awareness of this sort resides on the all-important demand side of the economy. This short paper is hoped to contribute to better thinking on the subject.

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