



## Agents in Mainstream Economic Theory: An Analytical Inquiry

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### Abstract:

Various paradigms in mainstream economic theory (MET) appear to have conceptualized an internalist, individualist and abstract notion of the agency/subjectivity/individuality. If MET makes the individual central to its analysis, criterion of identity and individuation must be applied to examine whether MET constructs an adequate and a substantive notion of the individual. Following Cartesian-Newtonian dualism of subjective inwardness-objective world and Smithian notion of a self-interested individual, cardinal utility approach of neo-classical economics constructs the individual as a utility maximizer involving means-ends rationality. Ordinal utility approach constructs a preference-based idea of the individual. Later developments in MET construct various notions of the individual such as an expected utility maximizer with mathematical and formal specification, an individual with bounded rationality and an individual as a bearer of strategies. MET also gives analytical primacy to the individual and uses ontological and methodological individualism (MI) as the explanatory strategies implying unidirectional causality, determinism and reductionism.

The abstract notion of the individual that evolved in MET cannot differentiate between a single individual agent and a multi-individual agent. MET, which makes the individual central to its analysis and uses MI as an explanatory strategy, lacks any adequate conception of the individual and fails to adopt any substantive notion of the individual.

**Keywords:** Agent, agency, individual, individuality, subjectivity, mainstream economic theory, means-ends rationality, preferences, representative agent, rational expectations, bounded rationality, strategies, methodological individualism

### Introduction:

Economic theory is first and foremost a form of social theory (Hodgson, 2002; Lawson, 2003; Fine & Milonakis, 2009). It attempts to study the economic systems, economic processes, economic aspect of human behavior, viz. economic dimensions of social reality. Social reality involves individuals as private as well as social beings and interactive relations among them. Social reality also involves social rules, norms and customs that structure relations among individuals. Social reality also consists of institutions and organizations,

consciously designed and deliberately created or emergent and spontaneous. Thus, social reality consists of interacting individuals whose individual and collective actions deliberately or unintentionally create social institutions and social structures that constrain, influence and shape their behavior as well as empower them by providing certain capacities to them by offering a place within the structures.

Any attempt to theorize about social reality fundamentally involves constructs of individuals and individuality, interactions among

individuals, social structures as well as composition of such structures and relationship between individuals and structures. All schools of economic theory involve certain constructs of individual and their agency as well as structures. They also tend to presume or imply a certain notion of the relationship among individuals and between agents and structures.

These constructs are partly rooted in the empirical reality itself, but such empirical reality is itself theoretically constructed through certain conceptual entry-points and frameworks that involve abstraction and approximation by selection and omission of the certain aspects of complex, context-rich, multilayered concrete empirical reality in its wholeness. Such theoretically grasped empirical reality is neither purely pre-theoretical nor value-neutral. Thus, different schools of thought in economic theory construct such notions differently despite dealing with the same empirical reality. Moreover, these constructs involve ontological (concerning nature of reality), epistemological (concerning nature of knowledge and ways of acquiring it) and methodological (concerning scientifically valid principles and rules of knowledge acquisition) dimensions.

Economists have often practiced economics without paying explicit attention to these philosophical and methodological aspects of the inquiry (Hodgson, 2007, p. 211). Since a presumptive handling of these entities without paying explicit attention to the construction of these entities have profound implications for the theoretical outcomes, study of the economic theory is necessitated through the lenses of the

fundamental building block of social reality, viz. agent or individual.

**Statement of the Research Problem:**

Various paradigms in mainstream economic theory (hereafter, MET) have conceptualized certain notions of agency/subjectivity/individuality. Moreover, these notions involve ontological and methodological dimensions. These notions adopted by MET and their implicit ontological and methodological dimensions have serious philosophical, scientific and methodological implications. Hence, uncovering and critically assessing the implicit philosophical assumptions underlying them is necessary for the progress of overall economic theory and the practice of doing economics.

**Objectives of the Research:**

1. To uncover and critically assess the conceptions of agency implicit in MET
2. To study and critically assess the ontological and methodological dimensions of agency as implicit in MET

**Hypotheses of the Research:**

1. MET has constructed an internalist, individualist and an abstract notion of agents/agency
2. MET tends to favor individual properties over structural properties and constructs an atomist notion of agent that is free of social influences and determinations.
3. MET implies unidirectional, non-interactive relationship between agents and structures relying on methodological individualism (MI) as the explanatory strategy.

**Methodology of the Research:**

This study is based on secondary sources. The sources include books, textbooks, companion books, edited books, journal articles, conference papers, online archives, websites, online videos of lectures etc. This research uses the following conceptual and methodological frameworks.

- a) Structure agency framework as developed in social theory
- b) Methodology of economics as studied in philosophy of economics
- c) Categorization of economic theory into mainstream economic theory (MET) and heterodox economic theory (HET)

**Agent/agency and individual in MET:****1. What is mainstream economic theory?**

Economic theory is broadly divided into two, mainstream economic theory and heterodox economic theory. The mainstream economic theory refers to the mainstream schools of economic thought that include neo-classical interpretation of classical political economy and neo-classical economics, general equilibrium models, new institutional economics, game theory approach to economics and behavioral economics. The mainstream economics involves a theoretical core that relies on the propositions such as preferences, equilibrium, scarcity, rationality, methodological individualism as well as a particular kind of beliefs, vocabulary, symbols and parables. While there have been multiple heterogeneous theoretical developments beyond the core of MET, they do not call into question the core itself in totality (Lee, 2008).

**2. What is agency? Criterion for identification of individual:**

Agency is defined as the ability of the individuals/social actors to choose, imagine, act, shape and interact with the structure (Emirbayer & Mische, 1998; Callinicos, 2004). The etymology of the term also denotes 'action/doing'. By agent, we refer to an individual in isolation or an individual as a part of some collective group. It is used to connote an individual or a set of individuals with ability as well as inability to act.

If individuals are to be considered important in economics, a criterion of independent identity of individuals has to be used (Davis, 2003, p. 13). An individual should retain some aspect of the individuality for her to be identified as the same individual amidst various forces acting upon her, i.e. reidentification of individuals. There must be something unchanging about individuals to explain their individual identity. Secondly, the individuals should be distinct from each other for them to be identified as distinct and independent individuals instead of being subsumed in a group, i.e. individuation problem.

**3. The idea of individual in MET:**

MET, takes the individual as fixed and given, and operates on the implicit assumption that one particular conception or view of individual, a subjectivist view of an individual, sufficiently explains individuality or agency. MET claims to provide an elaborate understanding of an individual in what it regards to be the centerpiece of scientific achievement in the field – the theory of individual choice – an elaborate inquiry into the nature of individuals in economic life along with an array of

technical issues related to it, unlike any other social science (Davis, 2003, p. 1).

Defining individuals in terms of their internal states, such as unchanging preferences or bearer of strategies, has been called the internalist notion of the individual as against the externalist notion of the individual in which the individual is defined as socially embedded, in terms of their external relations to one another (Davis, 2003, pp. 16-17; 33). These two distinct approaches have ontological implication in terms of the nature of human agency and methodological implication in terms of the explanatory strategy to be employed based on whether the analytical primacy is given to the individual or social phenomenon in accounting for cause-effect relationships. The internalist notion of the individual gives analytical primacy to the individual in explaining social phenomenon, a position also known as methodological individualism.

#### **4. Philosophical roots:**

The philosophical roots of the idea of the individual as inherent in neo-classical theory, which is the official theory of the individual as adopted in MET can be traced back to the modernist concept of the individual. This modernist concept of the individual is derived from the Cartesian-Newtonian dualism associated with the enlightenment conception of science and society (Davis, 2003, p. 2). The Cartesian side of the dualism involves human subjectivity as disengaged self, constituting the power of reason by the virtue of not being 'in' the material world (Taylor, 1989). The Newtonian side of the dualism involves objective world of nature and matter, having its own laws and mechanisms. Locke extended the

Cartesian idea of the individual by equating it with consciousness and treating her as an autonomous, independent being. Lockean legacy of treating autonomy of atomistic individuals as having something that remains unchanged while interacting with other individuals and the world around also had a profound influence on the idea of individual adopted by the neo-classicals.

#### **5. Classical Precursors:**

Classical theory, particularly Adam Smith, put forward a concept of a self-interested individual, at least in the economic matters of "truck, barter and trade" (2007, p. 9). In *Wealth of Nations*, Smith attempted to bring the two sides of the dualism together by using the Scottish enlightenment concept of unintended consequences, according to which, the intentional maximizing behavior of the individuals results in the unintended consequence of the enhancement of wealth of nations. Individuals are private subjectivities interacting with one another in competition and exchange, the objective world of the market. The metaphor of invisible hand used by Smith brought together the private subjects and the mechanical world of the market, thereby maintaining the dualism of subject-object. Smith tried to explain the mechanics of the objective world with loose and metaphorical reference to human agency without explaining the precise mechanism by which the self-interested behavior produced the market outcomes, thereby reducing the individual to a mere another unit of analysis.

Much of the later developments in classical theory focus on aggregative explanations, treating economic classes

instead of the individual as the fundamental unit of analysis.

#### **6. Neo-classical conception of means-ends rationality:**

Neo-classical theory of the marginalists (Gossens, Jevons, Menger, Walras and Marshall) imagined an individual who is ontologically separate from the outside world and acts autonomously. The individual has private mental sphere that manifests itself in the objective world of the market, thereby linking individuality with objective nature via the theory of choice (Davis, 2003, p. 25). The actions of this individual are centered around 'making a choice' in the given circumstances. Instrumental notion of means-ends rationality as conceptualized in the definition of economics articulated by Lionel Robbins (1935, p. 35) is inherent to 'making a choice'. Starting with the axiom of scarcity and possible alternative uses of the means, MET becomes the study of human behavior coordinating unlimited wants with limited means having alternative uses. This notion of a rational, self-interested, maximizing individual is the cornerstone of MET, also known as 'homo- economicus'.

The developments in the theory of consumer choice sharpened this notion of the maximizing individual with elaborations of technical issues related to it. The cardinal utility approach of the marginalists, basing the idea of the individual on utilitarian principle of human beings as calculators of pleasure and pain, made utility maximization as the end of human psychology. The instrumental rationality of means-ends relationship leaves limited scope for the idea of autonomy of the individual agency as it leaves no space for alternative

choices and conscious human action. An individual becomes a passive receiver of information who automatically and mechanically chooses the optimal alternative. Instrumental rationality of means-ends relationship overpowers any act of choice. Nonetheless, it still refers to human psychology in explaining individual choice.

The cardinal approach of the marginalists made a very important theoretical intervention by linking the intensity of desire, viz. marginal utility with markets accounting for determination of prices. The dualism between the Cartesian subject and the Newtonian objective world was thus sustained, leaving space for a notion of agency or individuality.

#### **7. Later developments in the neo-classical theory:**

The ordinal utility approach of Pareto (1971), followed by Hicks and Allen (1934) used preference and indifference as the basis for deriving the law of demand. Preference and indifference are about rank ordering that do not have anything specific to do with human psychology and subjectivity (Davis, 2003, p. 28). Preferences can be an attribute of any kind of agent that is able to discriminate options. This agent can be single-individual, multi-individual or an institution. Thus, the idea of a maximizing individual acquires another important dimension with the ordinal approach, a preference-based idea of the individual.

The ordinal approach assumes that tastes and preferences are exogenously determined and do not change. Thus, the ordinal approach constructs a notion of the individual as a maximizer and maintains consistency and unity of the individual on the

basis of the idea of unchanging preferences. Moreover, the notions of consistency and transitivity in choice become the defining characteristics of such an individual. There is a shift from a reference to the utilitarian notion of humans as calculators of pleasure and pain as inherent in cardinal approach to the preference-based idea of the individual in ordinal approach. In the former, importance of wants and desires points towards the psychological dimensions of individuals and therefore explicitly refers to individuals. The latter, transforms the individual into any preference-based entity, whether an individual or a group of individuals, that needs to simply rank and order the preferences and make a rational choice.

The later developments in the ordinal approach, particularly Samuelson's revealed preference theory (1938) and its implicit ambitions to make economics a 'science', carefully avoided language that referred to the internal states of the individuals, mental or otherwise. The idea of individuals as entities with 'given tastes and preferences' thus made the theory of consumer choice more about rationality and less about human psychology. Moreover, assuming tastes and preferences to be 'exogenous' makes them stand outside the determinations of the economy.

The dualism problem was resolved by Samuelson by simply recasting the world in purely Newtonian terms of the objective world, thereby dropping the Cartesian-Lockean subjective inwardness of an individual all together.

### **8. Later developments in MET**

Walrasian theory of general equilibrium took this development further. It reconceptualized the neo-classical economic man as an expected utility maximizer, purely in abstract mathematical terms (Davis, 2003, p. 31). Preferences are defined axiomatically, thus eliminating any reference to human psychology and expressing them purely in terms of formal and mathematical specification.

Later general equilibrium models, particularly rational-expectations theory-based models take the Walrasian notion of the individual to the next level by introducing a representative agent with rational expectations (RARE) (King, 2012, p. 1). According to this approach, an economy consists of identical individuals, not heterogenous individuals. The aggregate mimics the RARE and the RARE is the miniature version of the aggregate (Patnaik, 2009, p. 59). RARE gives rise to individuation problem as the individuals cannot be distinguished from one another.

Herbert Simon's conception of bounded rationality describes the individual as the one who may not be able to identify an optimal outcome, exercise relevant data or computationally process large amounts of information, instead adopting "rules of thumb" in decision making (Wrenn, 2006, p. 487). This is not a fundamental theory about the nature of the individual but an eclectic set of ad-hoc propositions about individual behavior. This adopts the abstract concept of individual of the MET and follows the philosophy of mind known as computational functionalism in which mind is a computer and an individual a

symbol processing entity (Davis, 2003, p. 82).

Recent advances in game theory have offered an entirely new concept of the individual as a bearer of strategy, without any reference to human psychology (Davis, 2003, p. 38). A bearer of strategies essentially means strategies can be assigned to the individuals, implying nonexclusive association. Strategic action cannot be uniquely characteristic of human beings and can also be attributed to multi-individual agents such as firms, giving rise to individuation problem. Game theory has been used for offering individualist explanations of institutions, social rules and conventions, as the outcomes of individual choices.

#### **Methodological dimensions of agency in MET:**

In MET, social institution of market is not a deliberate creation but an emergent outcome of the mental states and actions of the number of individuals acting together. The utility functions/preferences/profit functions are given and they determine the collective outcome at the level of the market and not vice versa. This implies a unidirectional causality from individuals and their characteristics to the collective outcome of the social institution of market. The influence of social institution of market or any other collective institution on the individuals is precluded. This methodological position is also known as ontological individualism (the whole is only made up of the sum of its parts) and methodological individualism (the whole must be explained in terms of its parts) (Udehn, 2002).

The methodological principle of equilibrium stabilizes the collective outcome. Any possibility of further changes in the structures that might involve bidirectional and multi-causal relationships between agents and structures is precluded. The relationship between agents and structures takes the form of deterministic and reductive relationship. It is deterministic in the sense that the agential properties determine the structural outcomes. It is reductive in the sense that the structural properties are perfectly reducible to the agential properties.

#### **Conclusions:**

The history of MET presents itself as involving the construction of a subjectivist, atomist and an internalist conception of an individual that evolves into an abstract individual, particularly in later developments. An individual of cardinal utility approach, making a choice aimed at maximizing utility involving means-ends rationality can be identified as an individual only because of the reference to human psychology. The preference-based idea of the individual that develops with ordinal utility approach eliminates the subjective dimension of the individual all together, by recasting the world purely in objective terms. The general equilibrium models took the preference-based notion of the individual even further by specifying it in formal and mathematical terms. The use of RARE in economic models cannot distinguish between distinct individuals, creating an individuation problem. The 'bounded rationality' conceptions of the individual use eclectic set of ad-hoc propositions about human behavior without conceptualizing a fundamental

notion of human nature. Game theory transforms the preference-based idea of the individual into the individual as a bearer of strategy, further consolidating the notion of the abstract individual.

The abstract notion of the individual that evolved in MET cannot differentiate between a single individual agent and multi-individual agent. Moreover, with elimination of the subjective dimension, the basis on which individuals are understood as independent beings itself is eliminated. Thus, MET, which makes the individual central to its analysis and uses MI as an explanatory strategy lacks any adequate conception of the individual and fails to adopt any substantial and coherent notion of the individual.

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