

Wrenn, Mary V.

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Searching for Common Ground: Interactive Agency in Heterodox Economics

Mary V. Wrenn*

The individual, economic agent has antecedents and consequences that shape her perceptions of the world, in other words, form the individual's mental models. Furthermore, the individual is a totality of mental models, which shape perception and influence the selection of relevant models to apply to data and interpret input. The influence of mental models therefore directly influences the degree of agency the individual is able to exercise. Moreover, whatever assumptions are made regarding the degree of agency an individual possesses informs the theoretical structure from which any approach to economics is built. This paper seeks to examine and compare the role of agency in heterodox economic thought and proposes that the theme of the individual might well serve as a missing link between otherwise disparate groups of thought.

JEL classifications: B40, B51, B52, B53, B59

Keywords: agency, structure, institutions, mental models, heterodox economics

1. Introduction

Agency is power – the power to act and the power to choose, the power to imagine and the power to understand, engage, and manipulate the surrounding biological and social environment. Western philosophy would have us believe that an individual's agency is entirely self-determined, autonomous, and efficacious – individual empowerment via free will. The orthodox conception of agency adopts the western philosophy in its employment of methodological individualism and its conceptualization of agency via optimizing, ration-

* Weber State University.

Correspondence Address:

Prof. Mary V. Wrenn, Department of Economics, Weber State University, 3807 University Circle, Ogden, UT 84408, USA, e-mail: marywrenn@weber.edu

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al economic man.¹ Agency within the orthodox framework is endowed without discretion to all individuals who independently choose to act based on the weight of objective costs and benefits (Davis 2003: 113, Lavoie 2006: 91 f.). One of the justifications for this simplified depiction of the acting individual is that such behavior is observable in the animal world; indeed optimization may be found at the microscopic level (Hodgson 2004: 58). The explanation of behavior in a Petri dish, however, does not provide a satisfactory or meaningful explanation in the crucible of the real world, with intelligent, creative, and socially situated human beings – at least not to heterodox economists.

To the heterodox economist, agency cannot be captured or analyzed by a simple rendering of the individual as is presented in orthodox economics. Rather, agency must be examined by its own internal logic and responses to external forces; agency must be described not only in terms of how much an individual possesses, but also in terms of how it came to be and how it evolves. The argument set forth in this paper is that the conceptualization of agency as a product of the individual's mental models and interaction with the surrounding structural environment unites otherwise seemingly disparate heterodox groups of thought.² The procedure is simple. The concept of interactive agency is sketched in the first section; the detail is provided by the sundry perspectives of five different (arguably) heterodox groups of thought³ in the second. The full pictures of agency from each heterodox perspective are then compared in the final section.

2. *Mental Models, Structure, and Interactive Agency*

The individual, economic agent has antecedents and consequences that give shape to her perceptions of the world, in other words, form the individual's mental models. The individual is a totality of her mental models, including models that not only shape perception but that also influence the selection of relevant models to select, apply, filter, and inter-

1 The author acknowledges the controversy (Colander 2000) in suggesting the existence of *an* orthodoxy, and wishes to emphasize that the task at hand specifically references the mainstream conceptualization of agency, which in the author's view remains at the core consistent despite any perceived eclecticism in the mainstream.

2 For an extraordinarily compelling argument for the exploration of common ground between different heterodox groups of thought (although not necessarily inclusive of the groups heretofore under examination), see Lavoie (2006).

3 The five groups of thought chosen were based on a review of the literature and were deliberately selected in order to explore the widest possible cross section of heterodox thought. Certainly, there is dispute among economists, specifically, historians of economic thought and methodology concerning the constituency of heterodox economics, and many will undoubtedly argue for and against the inclusion and/or exclusion of various groups of thought – see Wrenn (2004). For present purposes, these debates are put aside in order to explore agency from all five perspectives unencumbered by such debate. Likewise, the phrase »group of thought« is used to avoid the semantic difficulties imbued in the phrase »school of thought« – see Foldvary (ed.) (1996).

pret data. Mental models so envisioned are not endowed fully formed at birth, nor are they constructed via internally driven, universal maturation processes, but rather contain the antecedents and cumulative paths of the individual's contextually situated history. An individual's agency is the product of her mental models; in other words, the individual's mental models directly influence the degree of agency the individual is able to exercise in the decision-making process.

Agency and its underlying mental models constitute the mechanism of discretion and the source of action; thought and action are accordingly inseparable. The thought process involved in decision making and action can therefore only be understood in terms of the individual's agency and mental models (Pratten 1993: 412). Indeed, agency is crucial in decision theory. Decision theory itself is not only useful in terms of noting what choices individuals make in which context, but in understanding the processes of how individuals choose. A well-developed decision theoretical framework containing a dynamic and interactive interpretation of the individual is thus imperative in understanding the individual and by extension in the constructing of socially operational, productive, and relevant economic policy (Simon 1978a: 349).⁴

Action can be conceptualized as either intervention within surrounding structure or as inaction, that is, abstinence of action. Either way, action must be historically and socially located to have meaning (Giddens 1979: 55 f.). Mental models and agency are informed but not determined by the surrounding structural context. Structure broadly defined consists of enduring patterns of social relations (Barone 1998: 4). Structure manifests via the persistent, often tacit, contextual relations within and through which individuals act, and partially shapes the individual's agency through various social mechanisms such as power relations, resource allocation, and both formal and informal constraints and obligations. The individual is situated within a historically specific structural context. While sustained, structure is not permanent nor inherently stable (Pratten 1993: 411). Socially and temporally resilient structures may become institutionalized and as such represent »deeply layered«, dynamic social complexes (Giddens 1979: 64 f.). Furthermore, the institutionalization of enduring structures may occur either in objective reality, or as interpretively and subjectively represented in the individual's mental models (Hodgson 2004: 424 f.). As such, the broadly acknowledged systematic guidelines or norms of institutions are incorporated selectively into the mental models of agents. Institutions therefore differ from structure by virtue of establishment within society and greater ability to influence agency (what Hodgson refers to as »reconstitutive downward causation«). The key to the semantic difference is simply that institutions, as a subset of structure, wield greater influence and more directly »reconstitute« the mental models of agents (Hodgson 2002: 174 f.). For the sake of

4 While the other social sciences, most notably sociology, may currently offer complex depictions of the individual, the economics discipline remains isolated, notoriously eschews interaction with the other social sciences, and can only provide adequate policy advice via decision theory that incorporates complex depictions of the individual agent.

semantic simplicity and in order to expose causation rather than obscure focus by differentiating in terms of depth of causation, the remainder of this paper refers to structures and institutions synonymously.

Structural context thus plays a prominent role in the construction and shaping of an individual's mental models, and consequently her agency. Note should be taken: the influence of structure and institutions on agency consists of much more than a mere constraining mechanism. Legal infrastructure, norms, and customs of behavior may all act as constraints, but those norms and customs which instead change the mental model of the agent so that she chooses behavior based on preferences not fear of retribution or promise of reward, has changed (i.e., reconstituted) her agency as well. Preferences therefore may be changed endogenously as a result of structural pressures. It should also be noted that it is impossible to make orthodox preference functions as currently conceived transmutable in this manner (Hodgson 2002: 176 f.).

Moreover, recognition of the ability of structure to change and influence an individual's mental model should not be stretched to the point of determinism. Agency depicted through the socially embedded conceptualization of the individual is not true agency if the individual is not imbued with the power to influence the surrounding structure in a truly interactive fashion. Furthermore, that individual must possess the power of self-reference while recognizing – regardless of accuracy – social influences and her power to act and react to them (Davis 2003: 113 f., 128 f.). While methodological individualism ignores structural influence on agency, methodological collectivism (or methodological holism) casts the individual as the passive recipient of structural information and pressure. In order to avoid the reductionism of methodological individualism *and* the overly socialized individual of methodological collectivism – »to reject the grandiose delusion of being puppet-masters but also to resist the supine conclusion that [individuals] are mere marionettes« – care must be taken to link agency and structure as opposed to subsuming one into the other. Ontologically speaking, agent and structure must be analyzed as separate social strata (Archer 1995: 65 f., 132 f.).

In order not to subsume agent into structure or structure into agent, the interdependence of agent and structure must be acknowledged while also recognizing the simultaneous independence of each – the autonomous and internal forces – which propel agent and structure down their respective evolutionary paths (Archer 1995: 65 f.). Structures and agency exist independently and evolve in non-syncopated historical time (Hodgson 2002: 165). The only meaningful way to examine the interplay between agent and structure without submitting one to the evolutionary force of the other is to examine the relationship between the two over time (Archer 1995: 65 f.). Thus, structure and agency are approached as simultaneously sensitive to the workings of one another while also consisting and evolving independently and of independent inertia (Lawson 1997: 63). Such respect for the dichotomous forces which inform the development of agent and structure leads not only to understanding each more clearly but also serves as an important consideration in the development of economic policy. Structural economic policy changes that do not consider or anticipate the interaction between structural shift and the effected individuals are not

likely to succeed. One needs only to turn to the application of shock therapy in Eastern Europe for a striking example of such failure.

The interaction between agency and structure provides heterodox economists with a richer, fuller ontological description and explanation of the diverse range of human behavior than that of the calculative individual in orthodox economics. Orthodox economics makes *a priori* assumptions about the composition and constitution – the ontology – of the individual and therefore her agency, by assuming uniformity in the antecedent, historical context and imagined consequences across all individuals, in effect homogenizing the process by which information is perceived. Orthodox economics furthermore attempts to differentiate between individuals on epistemological grounds via models which incorporate imperfect knowledge in an effort to address the diversity between economic agents. To recognize ontological differences between individuals is to recognize the full diversity of mental models that individuals hold and the contextual framework within which those mental models evolved and continue to evolve. Likewise, to respect ontological diversity means to remove wildly independent self-determination and appreciate the variation in individual agency. The interactive agency framework which simultaneously recognizes the interdependence and independence of agent and structure is »so general to accommodate a variety of more specific theories« (Davis 2003: 127 f.). The following section explores the variety of heterodox theories of agency and the possible connections between these rather diverse heterodox groups of thought by dissecting each group's approach to and theoretical framework for interactive agency.

3. *Heterodox Economics and Interactive Agency*

3.1 *Original Institutional Economics*

The Original Institutionalist Economics (OIE) maintains a long-standing tradition of rebellion against the methodological individualism of conventional economics. Indeed, the clear goal of Thorstein Veblen was to develop a theory of agency to replace the unsatisfactory theory of the optimizing rational economic man – the »hedonistic [...] lightening calculator« – of neoclassical economics (Veblen 1898b: 389). In the development of an alternative theory of agency, the OIE of the early twentieth century placed primacy on the development of a more complete ontology of the individual, paying close attention to the cultural mechanisms which shaped and channeled the individual's mental models. While a few within the OIE, such as Ayres, adopted a more culturally deterministic conception of the individual (Hodgson 2004: 352 f., 358), the persistent theme within the OIE beginning with Veblen has been on the mutual interdependency, or interactivity, between agency and structure (Hodgson 2002: 174 f.).

Instinct, habit, and patterns of behavior form the building blocks of the individual's mental models. The individual is born with certain instincts that have evolved since the emergence of man, such as the capacity for language. Humans must have an innate sense of how to communicate in order to physically manipulate the body – lips, tongue, vocal

cords, lungs – to produce sound. Once a human is able to communicate, interaction with the surrounding structural context, including intersubjective relationships with other individuals, builds up the range of language, including dialect and culturally specific rhetoric (Hodgson 2004: 422 f.).

The incorporation of instincts into the theory of the individual does not imply universality of ontology or static conceptions of behavior. Evolution may work to change instinct through natural selection: workmanship naturally evolved as an instinctual trait as evidenced by the very survival of the human race (Hodgson 2004: 195 f.). Humans at their base have instinctual drives but the working out of these instincts, the behavior through and in which these instincts present themselves is determined by the cultural milieu to which the individual has been exposed (Hamilton 1953: 60). Habits, which are initiated and reinforced by the structural complex, thus work to modify and develop previously inherited instinctual behavior (Veblen 1898a: 188 f., 193 f.). This is not to deny or reduce the internal development of agency of the individual or to suggest that »magical« social forces act to form the individual's mental models, but rather to emphasize that structure changes an individual's mental models, thus changing the very personality, the fundamental essence, of the individual (Hodgson 2004: 184 ff.).

Habits and instincts are part of the cognitive framework, in other words, part of an individual's mental models and are at least partially informed by institutions and structure. Habits, routines, competency base, and skills are not static, but evolve with the changing structure and the changing individual (Davis 2003: 118 f.). Causation, however, does not run one-way from structure through habit to change instincts and behavior in a unidirectional fashion. Indeed, patterns in behavior are the combined result, in subjectively determined portions, of genetic composition, habituation, inertia, enculturation, path dependence, and cumulative causation. Habituation is a stabilizing and creative force in terms of institutional formation and evolution, as well as stabilized and channeled into change by the surrounding structural context (Hodgson 1998: 171, 185).

Institutions and more broadly, structure, are more than just a backdrop; more than just the scaffolding on which to hang human action or a foundation off which to build. Institutions, according to the OIE are structures which develop organically, shaping the mental models of individuals and in turn are shaped by humans in all their fallibility. Likewise, individuals carry forward mental models inherited and shaped from past patterns of behavior, but are capable of creativity and innovation (Mayhew 2001: 243). Individuals inform the composition and functioning of institutions and structure directly and through their intersubjective relationships with one another, and institutions inform the composition and functioning of an individual's mental models by reinforcing habits and informing the individual's cognitive process. As such, institutions and individuals maintain their independence – they are not ontologically equivalent – while simultaneously are interdependent (Hodgson 1998: 180, 184).

As a matter of practicality, structure is more enduring and longer lived, especially once institutionalized, than agent or agency. As a result, the future expectations of the individual are at least partially informed by the current and expected future environment

through structural influence on understanding, cognition, and cultural norms. Knowledge as such is embodied not only in the individual, but within structure as well and represents communally held (mostly tacit) knowledge. The individual learns – and adapts her mental models – from the communal stock of knowledge shared through intersubjective relations, from the structural repository of knowledge, and from her own experience (Hodgson 2004: 181 ff.).

In his development of the concept of interactive agency, Veblen recognized the mutual dependence between agent and structure as well as the irreducibility of one into the other. By recognizing that agent and structure are also independent entities, the internal integrity of both is acknowledged as well as the temporally asymmetric evolution of each – the antecedents and consequents. Agent and structure evolve; partially due to mutual though non-equivalent influence and partially due to internal, independent inertia. Agent and structure are thus mutually causative, but not mutually constitutive (Hodgson 2004: 181 ff.). The OIE acknowledge the ontological differences in individuals and their mental models as well as the organic evolution of institutions, and moreover, recognize the interdependence and independence of each. Agent and structure are both creators and created; are independent and interdependent; mutually causative but not mutually constitutive – in other words, interactive.

3.2 *Marxism*

Marx's historical materialism insists that a single element or individual cannot be studied apart from the totality in which it is situated. Indeed, much of the work in Marxist thought⁵ has focused on the individual as part of a collective, set within the more general context of society. The insistence of Marxist scholars on examination of structural forces is born of this philosophy; that it is impossible to understand the totality from the perspective of the individual as the individual is a product of the totality. The individual is not autonomous, but neither is she completely structurally determined. Marxist thought addresses agency very specifically in terms of the agent-structure relationship under the capitalist rubric.

Individuals are born with base human instincts for survival and in meeting the fundamental physiological needs for survival the individual must manipulate the surrounding environment. This manipulation set within a community of individuals becomes organized into a productive process, the development of which is determined by the materials and tools at the disposal of the individuals, and which results in the creation of a social structure that is subject to its own evolutionary inertia and to the further manipulation of individuals. Individuals, however, do not remain unaffected by the changing means of survival and production:

5 Indeed, given the wide array of strands of Marxist thought, it would be impossible to discuss in a succinct and inclusive manner, all the various representations.

»(Men) begin to distinguish themselves from animals as soon as they begin to produce their means of subsistence, a step which is conditioned by their physical organization. By producing their means of subsistence, men are indirectly producing their actual material life [...] The nature of individuals thus depends on the material conditions determining their production« (Marx/Engels 1995: 42).

The individual thus transforms nature into an object for use through the application of labor. The individual is also transformed by the very act of creating the object and its newly created use; what was once imagined becomes a necessity, and further imagination results in the individual again manipulating the surrounding environment to adapt to these newly formed mental models (Gould 1978: 41 ff.). »Hunger is hunger, but the hunger gratified by cooked meat eaten with a knife and fork is different from a hunger from that which bolts down raw meat with the aid of hand, nail and tooth« (Marx/Engels 1995: 132). There is a constant, temporally asymmetric, back-and-forth affectation between agent and structure; which augments and shapes, but does not entirely determine the nature, composition, and evolutionary paths of each.

Structure created by productive relations in turn creates and shapes the remaining structural forms, such as intersubjective relationships and identity. The roles individuals play, the opportunities presented to them, the perceptions they hold of the world – their mental models – are conscripted by social structure (Pratten 1993: 415 f.). The concept of identity plays a key role in the ontological description of the individual in Marxist theory. In opposition to the highly individualized and self-determined ideologies that buttress the mechanisms of capitalism, Marxist thought focuses on the structural forces that shape the identity of the individual. Class is a social construct, yet constitutes the core of identity; class is the lens through which the individual sees herself, the world, and her place in it. Individuals inherit social and class roles and are structurally conditioned from birth to occupy their proper roles through the socialization process and the enculturation of conformity (Barone 1998: 6, 11, 14). The individual does not exist apart from her class identity and the horizontal relationships therein, and agency is therefore defined at the level of class. Class membership defines, informs, embodies, and is the locus of agency (Davis 2003: 109, Parenti 1994: 103 f.).

Marxists, such as Ebert (2005), stress that a »productive« concept of agency should be framed in terms of class structure and avoid the secondary structural forces of identity politics that coincide with lifestyle and demographic distinctions, such as race, religion, and gender. This is not to deny structural influence on agency outside of class structure, but rather to see secondary structure in terms and as the result of a historically class-based society: »Difference« is acquired in identity politics by essentially culturalizing the social divisions of labor« (37 f.). As such, agency conceived outside of class identity veils the origins of social structure that evolved as a result of class divisions. Class structure is phenomenon; the secondary structure of identity politics is epiphenomenon. To not place class at the center of inquiry is to deny the driving force behind agency and secondary structure (Ebert 2005: 37 f., Bowles/Gintis 1986: 100 ff.).

Secondary structure as driven by class structure works to shape identity. Lifestyle and demographics as part of the secondary structure create cross-class or »fractured identities.« Culture, family, and education constitute the central structures in the socialization process and the means by which social and class roles are rationalized as either inherent or meritocratic (Barone 1998: 16 f.). According to Ebert, however, identity politics represents a means by which the managerial class might distinguish itself from the working class without resorting to class distinctions, thereby threatening the existing social order. Focusing on secondary structurally determined identity thus obscures and perpetuates the socially structured inequality of class-based society.

Exploitation of the worker class, however, could not persist without an underlying social structure which shapes the mental models of individuals and makes the relations of production palatable and without which, the irrationality of the system might be exposed, leaving it vulnerable to resistance, sabotage, or revolution. Moreover, the persistence of social and ultimately class structures, Barone (1998: 2) argues, cannot be understood in any meaningful way without understanding and studying the culture which perpetuates it. Marxists, such as Gramsci, argue that structures outside of class influence individual self-perception, preferences, and which norms would be internalized (Hodgson 2004: 132): »Our capacity to think and act on the world is dependent on other people who are themselves both subjects and objects of history« (Gramsci 1995: 660). Objective structures and institutions require mental models to sustain it both at the collective level of socially shared mental models and at the individual level to rationalize and sustain it (Barone 1998: 9).

Regardless of the debate within Marxist thought as to whether structure outside of class should be studied in terms of conditioning agency, it is apparent that the relationship between agency and structure is the centerpiece of the Marxist theory of the individual. The collective identity formulation of agency is clearly important in Marxist thought, but is not at odds with interactive agency and the internal evolution of the individual. Indeed, the collective is considered a structure and the shared intentions of the collective's members are influenced by the constituency of the collective, thereby allowing for agent-structure interaction within the collective as well as in the more general social structure framework. There is no contradiction between the two: the collective conceptualization of the Marxists simply adds another layer to the agency-structure relationship (Davis 2003: 109, 138 f.).

The social totality thus consists of three levels, the macro level of institutions, the meso level of collective groups, and the micro level of the individual. The agency-structure relationship functions through all three levels (Barone 1998: 4). Within the social totality, institutionalized structure and the labor process transform individuals and social groups who in turn both singly and collectively transform the social structure and totality. Agency and structure evolve according to non-syncopated, independent timetables, yet are simultaneously subject to the pressures and influences of the other's evolutionary path. The interdependence between agency and structure is thus tightly interwoven: agency and structure are interdependent, yet maintain their own internal logic and temporally distinct evolutionary progressions (Gould 1978: 60 f.). Agents are not passive recipients of struc-

ture – agency and identity are the driving forces behind structural reproduction (whether secondary or primary), persistence, and hysteresis (Barone 1998: 23 f.).

Marx and Marxist scholars possess a heightened sensitivity to social injustice. Social injustice does not exist in ideologies which emphasize self-determination and wildly independent agency. Such ideologies serve to justify existing power structures and sustain the mechanisms of what Marxists perceive to be a dehumanizing system of production (Parenti 1994: 18 f.). Marxist thought emphasizes the relationship between structure and agency in order to address the systemic social injustice inherent in the capitalist system. But Marx and Marxist thought also recognize and respect the individual and the individual's ability to manipulate the surrounding structural environment. The over-socialized – overly structured – depiction of the individual and agency, listing too heavily towards methodological collectivism does not accurately characterize the Marxist treatment of the individual (Hodgson 2004: 23 ff.). Indeed, Marx himself was writing against the highly individualized writings of the classical economists, and about a system he found noxious and ultimately debilitating in terms of the human spirit and creative impulse (Hodgson 2004: 37 f.). Marx however recognized the essential and intrinsic agency of the individual, the possibilities imbued in the courses of action chosen by the individual, and warned against reifying society and the social structures therein. The individual was not stripped of her agency; agency was cast in light of the structural constraints imposed by the relations of production. Marx viewed the agent-structure relationship as both independent and interdependent (Gould 1978: 28, 72 ff.):

»Individuals have always built on themselves, but naturally on themselves within their historical conditions and relationships, not on the 'pure' individual in the sense of the ideologists. But [...] there appears a division within the life of each individual, insofar as it is personal and insofar as it is determined by some branch of labour and the conditions pertaining to it [...] We do not mean it to be understood from this that [...] [individuals] cease to be persons; but their personality is conditioned and determined by quite definite class relationships« (Marx / Engels 1995: 83 f.).

Regardless of the means of subjugation or dominance, Marx always maintained that the agent remains an agent, never becoming solely an object nor to be understood only in terms of intersubjective relationships (Gould 1978: 136 ff.). Indeed, for Marx and in the current Marxist tradition, the agent-structure relationship is interactive – influence runs both ways. To the Marxist economist, however, the social structure of inequality endemic to capitalism and the resulting unnecessary misery imposed on the majority of humankind with its humiliating and crippling effect on the psyche of the individual is of primary focus and concern.

3.3 *Post Keynesians*

The concept of agency from a distinctly Post Keynesian perspective is »an area of work that is still in development« (McKenna / Zannoni 2003: 1). An examination of some of the core

concepts which inform the Post Keynesian theory of the individual should, however, provide insight into the direction and development of this work in progress. The Post Keynesian treatment of uncertainty provides the most obvious and well developed entry point.

Post Keynesians challenge the idea that individuals can foresee the future and rationally understand the consequences of enumerated future events in order to develop a well behaved preference ordering. It is clear that Post Keynesian fundamental uncertainty is different from the uncertainty found in mainstream economics, for fundamental uncertainty is not based on known and stable probability distributions (i.e., ergodic) as it is in orthodox economics. Uncertainty takes the form of fundamental uncertainty,⁶ which is essentially non-ergodic and reflects the temporally non-syncopated nature of institutional and individual evolution (Dunn 2001: 568 f., Lavoie 2006: 91 f.). By contrast, orthodox uncertainty relies on epistemological distinctions to account for heterogeneity in individuals. Greater access to information in the orthodox framework allows for ›Bayesian updating of subjective probabilities;‹ thereby allowing the individual to approach objective uncertainty through the learning process (Hodgson 1998: 327, Rosser 2001: 550). The theory of fundamental uncertainty is characterized by ontologically non-determined and diverse individuals with heterogeneous mental models. Variations in the ontological *and* epistemological nature of individuals open the door to innumerable and unforeseeable – fundamentally unknowable – future possibilities (Dunn 2001: 572, Lavoie 2006: 91 f.).

As opposed to strict rationality, individuals at times are driven to action by what Keynes referred to as »animal spirits« when confronted with uncertainty. Likewise, individuals may make intersubjective comparisons, rely on intuition, adopt behavior that conforms to commonly held beliefs, or get swept up in mob mentalities as coping mechanisms and as decision making guides under uncertainty.⁷ Such decision making devices also serve the purpose of allowing individuals to deflect blame for bad decisions. Under these non-routinized scenarios, uncertainty is fundamentally non-quantifiable and hence, essentially non-ergodic (Rosser 2001: 547 f., 554).

The ability to make a choice – what for present purposes is called agency – is derived in part from the agent's mental models, ability to reason, and proximate social structure (McKenna/Zannoni 2003: 1 ff.). In non-crucial, i.e. routine, decisions individuals often rely on conventions to make decisions (Rosser 2001: 557). Conventions inform mental models by acting as heuristic devices, helping to imbue data with meaning, as well as form the foundation of social interaction; all of which allow for individuals to make decisions under uncertainty. The construction and evolution of mental models is determined in part by the surrounding structural milieu and intersubjective relationships. Likewise, the formation and evolution of institutions will differ according to the mental models of the proximate individuals (McKenna/Zannoni 2003: 2 ff.).

6 There is debate within Post Keynesian circles regarding the nature of fundamental uncertainty and methods for amelioration in policy making – see Rosser (2001).

7 Such behavior also explains speculative bubbles – see Galbraith (1952).

The social structure, more than acting as a constraint on choice, partly informs the agent's belief system while choices made by individuals in turn inform the social structure. The Cartesian conception of the purely intellectually constructed mental model found in the orthodoxy's rational economic man is thus deliberately avoided under the Post Keynesian rubric. The individual does, however, maintain internal integrity and autonomy – structure is not deterministic and individuals are still capable of free will. Indeed, both structure and agent maintain independence while remaining interactive (McKenna / Zannoni 2003: 3 f.). The Post Keynesian conceptualization of agency therefore eschews both methodological individualism and methodological collectivism in favor of interactive agency whereby the individual agent makes choices within a cultural context and the choices influence the very social structure wherein the original choice was made (McKenna / Zannoni 2003: 1 ff.). Such dynamism need not indicate social instability. The stability of any social structure, or in larger review, social system, is insured over the long run by the very influence of social structure on its constituents, in other words, by conventions, rules, and norms. Stability does not intimate, however, ergodicity (McKenna / Zannoni 2003: 1 ff.).

Although largely implicit, Post Keynesian thought addresses and frames agency in interactive terms with »dynamic interaction between agent and structure« (McKenna / Zannoni 2003: 2). Perhaps the lack of direct attention Post Keynesians have awarded to agency is due to the preoccupation with uncertainty and specifically the refutation of the orthodoxy's theory of rational expectations, which has direct and (in the Post Keynesian view) dangerous implications for government policy. The theory of rational expectations, supported by ergodic uncertainty assumes that people will essentially emasculate government policy as they will accurately forecast and adapt to policy changes (Rosser 2001: 545). Through fundamental uncertainty and by refuting rational expectations and ergodic uncertainty, however, Post Keynesians implicitly underscore the evolution of mental models within the structural context and the interactive communication and affectation between agent and structure.

3.4 New Institutional Economics

New Institutional Economics (NIE) claims wide territory over numerous lines of thought and is known by many different aliases (Rutherford 1994: 182) which serve to distinguish degrees of variation among those lines. Before the NIE's conceptualization of agency can be explored, distinction must be made regarding which branch(es) of the NIE are the subject of discussion. There are subsets within the NIE which cling to the orthodox conceptualization of the maximizing individual and retain the formalist procedure used to extrapolate about human behavior (Rutherford 1994: 2, 20, 24, 67 f.). Others, in particular those within the NIE who work from a more evolutionary framework, reject the optimization model (Rutherford 1994: 79).

Hall and Taylor, writing from the perspective of political science, distinguish between two approaches to the study of the individual within the NIE with a superficial but useful distinction: the »calculus approach« and the »cultural approach« (1998: 17 f.). Those who

employ the »calculus approach« conceptualize the individual in much the same manner as the orthodoxy: a rational, optimizing individual with a given preference function. The surrounding institutional structure serves what might be interpreted as a basic epistemological service by ameliorating uncertainty. There is no interplay between individuals and their exogenously determined preferences or identity. Those within the NIE who employ the concept of bounded rationality represent the »cultural approach«. The relationship between agent and structure is much more intimate than under the former approach, as structure, or more specifically institutions,

»provide moral or cognitive templates for interpretation and action [...] Not only do institutions provide strategically useful information, they also affect the very identities, self-images, and preferences of the actors.« (Hall/Taylor 1998: 18)

Likewise, the evolution of institutions is portrayed as path-dependent since the institutions at least partially structure the mental models of the constituent individuals.

Bounded rationality⁸ thus represents a significant step from the strict confines of mainstream methodological individualism by recognizing institutional constraints as well as focusing on the process of decision making, as opposed to outcome (Eggertson 1993: 231 f.). According to Herbert Simon, the lacuna left by the orthodoxy's static conceptualization of the individual includes failures to address preference formation and transformation; which economic concerns are primary to the individual at one point in time, others at another; creativity and structural changes, both inside and outside of the market setting (1978a: 357 ff. and 1992: 4 f.). Accordingly interpreted, bounded rationality more accurately describes the individual as one who may not be able to identify an »optimal« outcome, exorcise relevant data, or computationally process large amounts of information. For that reason, the agent adopts »rules of thumb« decision making, in which antecedents inform the organization and composition of mental models, how the mental models filter data, and which mental models to apply (Hodgson 2001: 475, Simon 1978a: 362).

Bounded rationality is not the same as incomplete information. Incorporation of incomplete information does nothing to expand orthodox decision making in any meaningful way since the incomplete information still assumes the existence of one correct data set to which individuals either do not have access or are not able to cognitively grasp. Incomplete information does not address differences in perception, interpretation, or the process of cognition – only the constraints on access and limits to cognition (Simon 1978b: 494). The bounded rationality theoretic proposes weaker demands on the individual's ability to make decisions, and thus disallows the feasibility of prediction of choice; extending un-

8 Bounded rationality as used here and through the remainder of the paper refers to Herbert Simon's conceptualization of bounded rationality as distinct from Oliver Williamson's bounded rationality. Williamson does not fully incorporate structure into analysis as does Simon; instead conceptualizing structure as constraining mechanisms (Williamson 1985: 48, 1996: 145, 2000: 600 f., 605). »In Williamson's analysis, structure matters only as a means of validating the underlying theory in which structure has no role« (Loasby 2001: 400). See also Pratten (1997).

certainty into non-ergodic uncertainty (Simon 1978a: 347). Accordingly, the process by which unavoidably fallible individuals decide – not the possible outcomes of such decisions – is where economic inquiry should begin (Simon 1978a: 350). Simon's bounded rationality is misinterpreted as an extension of incomplete information but was intended to attempt to address the ontological nature of the filtering of data through mental models and how those mental models were constructed in the first place (Loasby 2001: 403, Sent 2005: 228 ff., Simon 1978a: 362 f. and 1991a: 322).

Once human beings became sentient through the evolutionary chain of events, in addition to self consciousness the individual could make linkages between experiences and as a result, construct mental models. These mental models, combined with the capacity to imagine by making conjectures and create through novel action, resulted in growing variation across mental models (Loasby 2001: 404). North argues that individuals are born with a genetic »initial architecture of [...] structure« what Veblen called instincts (North 1994: 362). Indeed, the NIE reference the Veblenian concept of instincts (although not crediting it as such) in their discussion of the early individual who possesses genetic programming (Loasby 2001, North 1994). Moreover, the individual's mental models develop and evolve at both the conscious and sub-conscious levels whereby socialization, tacit learning, and formal learning inform the construction and content of the mental model (Hodgson 2004: 422). Intersubjectivity gives rise to shared mental models, classes of which may be thought of as ideologies, or if temporally sustained, institutions (Denzau / North 1994: 4). Knowledge is not only intersubjective, but influenced by social norms, customs, and beliefs imbued in the individual's proximate social structures (Boudon 1992: 130 ff.). Additional learning, experience, and exposure to structure then augment and alter the initial inherited edifice.

Mental models consist of loosely connected, context dependent frameworks and exist in the form of the individual's representation and perception of reality, and physiologically as complexes of neural networks. These mental models are based on reference to patterns as opposed to a logic system (Loasby 2001: 393, 401). Different cultures form different mental models based on the generational inheritance of customs and norms which comprise the informal institutional structure. Indeed, Simon specifies the need for qualitative methods such as ethnographies and case studies in economics as a means by which the surrounding structural network might be better understood (Simon 1978a: 354, 367).

Culture sets the course of path dependence. As society evolves, the interdependency between different individuals and individuals and structures deepens (North 1994: 363 f.). The cognitive processes that inform the construction of mental models vary not only according to person, but also according to socialization and culture insofar as the manner in which data might be selected, interpreted, filtered, perceived, and/or comprehended. The implication is that different mental models select different input to process and would process the same data input (if so selected) differently (Dequech 2001: 922 ff., Eggertson 1993: 233 f., Simon 1978a: 365). The individual's mental model imbues incoming data with meaning and situates it within a familiar frame of reference in order to make sense, contextualize, and make relevant the data. Rationality is thus bounded by its cultural and con-

textual specificity (Hodgson 2004: 421 f.). Combined with the cognitive skill of creativity, the exercise of mental models produces purposive and imperfect action (Loasby 2001: 401).

The evolution of mental models is usually slow and gradual – excepting periods of »punctuated« change – giving rise to its path dependent nature. North's description of the evolution of mental models closely resembles Veblen's famed dichotomy in his description of the evolution of an economic system. Change in an individual's mental model emerges through the adaptation of new meanings, facilitated by the implementation of analogy or metaphor. Over time, a paradigmatic shift of the Kuhnian variety unfolds. On a broader scale, shifting mental models signal shifting ideologies, impacting both formal and informal institutions. Resistance to change in mental models emerges from the refusal to yield ideologies, as illustrated in resistance to change via reference to closely held religious beliefs (Denzau / North 1994: 25).

The concept of agency appears within the NIE framework in substance if not in name through the discussion of mental models. Mental constructs informed by the individual's computational capacity, ideology, and subjective perceptions filter information. In conjunction with these mental constructs, formal rules and previously adopted informal rules and procedures including social conventions, simplify the otherwise complex and computationally overwhelming process of decision making. Mental constructs and the institutional environment thereby structure the intersubjective relationships between individuals but more importantly, the individual's agency (North 1990: 25 f.). The creation of institutions is catalyzed by the individual's need for organization and order and as such, serves as a socially integrative mechanism. Institutions are thus created by individuals for individuals as a means of coping with the limitations of human computation and a fundamentally uncertain future (Simon 1978a: 354 f., Simon 1991b: 38 f.).

The NIE, a contentious group with respect to the orthodox-heterodox divide, does attempt to extend past the atomistic framework of the mainstream by introducing an institutionally situated individual into their analyses. Some would argue, however, that these attempts are frustrated by the NIE's vestigial adherence to the autonomy of the individual, which does not leave room for an explanation of institutional influences (Davis 2003: 101). The intersection between Simon's bounded rationality and North's attention to mental models, however, evidence NIE recognition of structural relevance and moreover, the manner in which interaction between structure and agent fundamentally changes the individual's mental models and agency while agent action partially directs structural and institutional evolution.

3.5 Austrian Economics

In the Austrian framework, all economic activity boils down to the individual who is *the* unit of analysis and the origin of all action: the study of social phenomena begins at the level of the individual who is the genesis and purpose of all social activity (Prychitko 1995: 9). Methodological individualism is the calling card of Austrian thought, but a contingent of Austrian economists (see Boettke and Prychitko in particular) maintains that not all

methodological individualisms are created equally and that there is a fundamental difference between the methodological individualism of the mainstream and that of a particular strain of Austrian economics (Boettke 1995: 22, 26, Prychitko 1995: 9, 13).

Methodological individualism of the orthodox variety requires that individuals be characterized as passive receptors of information who process incoming data, and then rather mechanically and automatically choose the optimal, maximizing option. This type of methodological individualism is not interested in the process of decision making and individuals are not viewed as purposeful actors in any meaningful sense (Prychitko 1995: 10). Boettke argues that economists should occupy the space between formalism and the »overly socialized individual«, by arguing that in order to approach different cultures, some strand of universality in human behavior must exist, otherwise, study across cultures would not be possible. Likewise, the very admittance of differences in cultures intimates that context is important as well. Boettke suggests that this »sophisticated version of methodological individualism« (1995: 59) or »institutional individualism« (1995: 62 f.) could walk the line between atomistic individualism and holism as opposed to the »methodological atomism« or »optimization analysis« of mainstream methodological individualism (1995: 26). Prychitko likewise suggests the difference is encapsulated in thinking of the orthodoxy's version as »naïve individualism« and the Austrian theory as »sophisticated individualism« (1995: 9 ff.).

This version of Austrian theory by contrast to orthodox economics casts the individual as a social being and as such argues that individuals are not and should not be studied atomistically, but rather as individuals with social ties (Voigt/Kiwit 1998: 84). Moreover, the predominant focus on the microeconomic relationships between individuals suggests that primacy is placed on intersubjective relations (Runde 2002: 185). The individual is still accorded a strong self-determination and agency. As such, this Austrian subset shares the orthodox characterization of the individual as an autonomous being, but the origin and evolution of the individual's autonomy, mental models, and agency differ between the two groups (Davis 2003: 16). Again, it should be stressed that while not all Austrian economists have moved from the atomistic conception of economic man, a small but well respected and recognized group of Austrian scholars have incorporated intersubjective relations and institutional influence into their conceptualization of human behavior – both modern and forerunners – that latter as evidenced in the post World War II works of Hayek. In doing so, these Austrians have adopted implicitly, if not explicitly, interactive agency into their theoretical framework (Rosen 1997: 197) and in so doing have counterpoised their concept of agency against the optimizing, rational economic man of orthodox theory (Runde 2002: 193).

Accordingly, economic behavior must be understood in terms of shared social meanings which are facilitated by the surrounding structural complex. An intersubjective informed approach to agency is duly required. Meaning is simultaneously intersubjectively informed, shared, and personalized to the individual (Boettke 1995: 27 f.). In order to understand human behavior, analysis must therefore move beyond the rote actions of the individual and encompass the intersubjective relations or the common mental models and mutual meanings that individuals share based on their proximate situation within simi-

lar social structures (Prychitko 1995: 11 f.). In his much celebrated treatise, *Human Action*, von Mises clearly states that

»Nobody ventures to deny that nations, states, municipalities, parties, religious communities, are real factors determining the course of human events. Methodological individualism, far from contesting the significance of such collective wholes, considers it as one of its main tasks to describe and to analyze their becoming and their disappearing, their changing structures, and their operation« (1963: 42).

Furthermore, according to Mises, the individual's mental model is a determinant and predictor of success and by extension, a reflection of the individual's agency. Education cannot act as the great equilibrator, because learning is influenced by the individual's subjectively shaped mental models. Success is achieved by those who possess adaptive mental models and can learn from institutions, such as the market, and from the actions of others (Lachmann 1951: 420, 426).

Some of the misunderstanding in the Austrian position on methodological individualism was born of the strongly worded Austrian writings which highlighted individual action (Prychitko 1995: 13). The Austrian theorists under discussion, however, maintain that incorporation of social structure and institutions is possible, even within the individualist framework, asserting that methodological individualism and political individualism are not equivalents (Boettke 1998: 55). Structures and institutions are brought about as the spontaneous result of human behavior and furthermore are driven, formed, shaped, and evolve through action on the part of the individual (Voigt/Kiwit 1998: 84, 102). The spontaneous ordering of institutions through individual action need not exclude the prospect of interactive agency. Evolution of institutions is postulated to emerge as the result of the culmination of individual action, but is not, by that postulation, indicative of unilinear causation. Indeed, structural limits placed on agency are recognized and support the ideological conviction to limit institutions (Rosen 1997: 143). The argument against planning is rooted in the assertion that individuals are the best equipped to make economic decisions since individuals are contextually situated and the bureaucrats of a centralized planning system are not (Boettke 1995: 29).

The incorporation of intersubjective relations and institutional influence signal the implicit, if not explicit incorporation of interactive agency into the theoretical framework of the individual (Rosen 1997: 197). The inclusion of subjective mental models that are influenced by institutional context provides a much deeper ontological dimension to agency than that of the orthodoxy (Runde 2002: 199). This Austrian contingent allows for subjectivity in perception and selection of means to attend to subjective goals, while the mainstream only permits subjective goals by way of preferences (Dempster 1999: 75). Moreover, radical subjectivity is not synonymous with atomism; these Austrians conceive of institutions as more than mere mental constructs of individuals, instead recognizing social institutions as mechanisms of providing information and influencing perception (Boettke 1995: 24). Hayek's espousal of interactive agency is evident in his arguments against »[t]he errors of [...] Cartesian dualism;« the one-way causation running from individual to structure:

»The fact is, of course, that (the individual's) mind is an adaptation to the natural and social surroundings in which man lives and that it has developed in constant interaction with the institutions which determine the structure of society« (1973: 17).⁹

Influence flows in both directions: the institutional and structural environment that surrounds individuals is constructed unintendedly and spontaneously by individuals and also influences the mental models and perceptions of those individuals. Here we see laid bare the concept of interactive agency (Prychitko 1995: 13).

4. *Closing Remarks*

To be certain, the various groups of thought within heterodox economics – those included in the present comparison as well as those which remain for future discussion – currently offer a diverse body of theory. Such diversity need not imply contradiction or incompatibility. Indeed, as Lavoie reminds us,

»heterodox economists should never forget that they have more in common with other heterodox colleagues than with most authors of the neoclassical school« (2006: 89).

These commonalities move far beyond a shared critique of the mainstream; it is the position of this paper that the composition and characterization of the evolving economic agent demonstrate overlap of *content*.

In separate review, the five heterodox groups of thought discussed conceptualize the individual and explore the interaction between agent and structure from different theoretical frameworks, but the boundaries between these heterodox groups are not definitive, their theoretical constructions of the economic individual incongruous, nor their constructions of the interactive agency theoretical incompatible. Indeed, through discussion of mental models, structure, agency, and their respective evolutions, the heterodox groups of thought under consideration are able to provide ontological detail that addresses the range of human behavior and reaches beyond epistemological constraints and maximizing motivations. Complementary theoretical threads running through the frameworks of all five groups of thought include elements of non-ergodic and subjective uncertainty, ontological (as opposed to strictly epistemological) distinctions between individuals, temporally non-syncopated evolution of individuals and institutions, and the interdependence and independence of agent and structure – in other words, interactive agency.

OIE and Marxist thought maintain the strongest and most developed conceptualization of the individual and interactive agency, perhaps because the respective progenitors of

9 Also: »It is probably no more justified to claim that thinking man has created his culture than that culture created his reason« (1979: 155 f.).

each tradition recognized the incumbency in avoiding the self-determined individualism of their historically respective orthodoxies: Marx and classical political economics, Veblen and neoclassical economics. Marx specifically aimed to warn of the debilitating and dehumanizing effects of the structure of the capitalist mode of production on the agency and identity of the individual; leading ultimately to her alienation. Likewise, Veblen sought to replace the neoclassical reductivist image of the individual and call attention to the sway of market power and emulative psychosis impinging on the mental models and agency of individuals through consumer driven society. While having not yet directly addressed the issue, Post Keynesian thought approaches agency through fundamental uncertainty; thereby demonstrating strives to make ontological differentiations between individuals.

NIE and Austrian economics are the hardest sells in terms of classification as heterodox, perhaps because each maintains their respective traditions of methodological individualism. Each group certainly counts as members economists who stridently adhere to the more atomistic, rational, and self-determined individual found in the orthodoxy. Each group, however, also includes prominent members – both from the historical founders and the modern generations of the traditions – who openly discard the methodological individualism of the orthodoxy in favor of a depiction of the individual who interacts with the surrounding structural context. The admittedly small, but nevertheless unavoidable pockets of modern Austrian thought discussed above specifically highlight a »different« methodological individualism than the orthodoxy. Individual action creates proximate structure and the constraints any structural environment might place on further individual action not only supports the political individualism of the Austrians, but evidences the integration of interactive agency into their theoretical framework. Likewise, the intersection of Simon's bounded rationality and North's mental models introduces to the NIE an interactive depiction of agent and structure whereby structural context acts as more than a constraining mechanism and has the ability to reorganize the mental constructs and computational processes of the individual through changes in perception. Furthermore, both the Austrians and the NIE argue that structure is changed through purposive yet imperfect agent action which is based on the subjective and contextually shaped mental models and agency of the individual.

The purpose of this paper has not been to suggest that these diverse (again, arguably) heterodox groups of thought should consolidate or homogenize the economic individual and the discretion and power she is able to exercise in the decision making process. Such an attempt would run counter to the idea of pluralism embodied in the prefix »hetero«. Rather, the purpose of this paper has been to suggest that given the cumulative theoretical threads of these groups, that the cohesive demand for a rethinking of orthodoxy's rendering of economic man might pierce the inner sanctuary containing the »isolated, definitive human datum« and open the door to a more pluralist economic discipline. Such a widening of the discipline to a pluralism of thought perhaps will construct more socially relevant thought and innovation which might then provide socially relevant measures of reform.

»[H]eterodox economics may have a more promising future than most imagine. If the elements of an alternative conception of the individual described here coalesce around an increasingly resonant set of concerns regarding individual life in today's socially complex world, the better intuitions that heterodox economists have about institutions and social structures could place them in a position to speak with greater authority about society's concern over the increasing vulnerability of individuals« (Davis 2003: 191).

While some may object to either too broad a spectrum of possibilities as provided by pluralism and others to the dangers in what might be considered consolidating or homogenizing economic thought, the assurance offered by genuine scientific inquiry in economics should satisfy both. Common ground does not suggest common outcomes or common goals; as is clearly the case when juxtaposing the political ideologies of the Marxists, OIE, and Post Keynesians against those of the Austrians and NIE. Common, or at the least contributory, ground does however provide a base from which to start economic inquiry and integration, as well as democratic policy changes. In as much, scientific inquiry and the democratic process are parallel in quest and process: the objective of both is not to simply reach consensus, but instead to provide a process by which inquiry and reasoned discourse create an economics that is a self-correcting social science focused on the resolution of social anxieties, charged with the task of social reform (Tilman 1987).

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