



## International Journal of Organizational Analysis

Coping with irrationality in orthodox economic theory: moralization as expedient theorizing  
Alexander Styhre

### Article information:

To cite this document:

Alexander Styhre , (2016), "Coping with irrationality in orthodox economic theory: moralization as expedient theorizing", International Journal of Organizational Analysis, Vol. 24 Iss 5 pp. -

Permanent link to this document:

<http://dx.doi.org/10.1108/IJOA-10-2015-0931>

Downloaded on: 10 November 2016, At: 02:17 (PT)

References: this document contains references to 0 other documents.

To copy this document: [permissions@emeraldinsight.com](mailto:permissions@emeraldinsight.com)

The fulltext of this document has been downloaded 60 times since 2016\*

### Users who downloaded this article also downloaded:

(2016), "Human resource management executive presence in top management", International Journal of Organizational Analysis, Vol. 24 Iss 5 pp. -

(2016), "Redefining the organizational citizenship behaviour", International Journal of Organizational Analysis, Vol. 24 Iss 5 pp. -

Access to this document was granted through an Emerald subscription provided by emerald-srm:563821 []

### For Authors

If you would like to write for this, or any other Emerald publication, then please use our Emerald for Authors service information about how to choose which publication to write for and submission guidelines are available for all. Please visit [www.emeraldinsight.com/authors](http://www.emeraldinsight.com/authors) for more information.

### About Emerald [www.emeraldinsight.com](http://www.emeraldinsight.com)

Emerald is a global publisher linking research and practice to the benefit of society. The company manages a portfolio of more than 290 journals and over 2,350 books and book series volumes, as well as providing an extensive range of online products and additional customer resources and services.

Emerald is both COUNTER 4 and TRANSFER compliant. The organization is a partner of the Committee on Publication Ethics (COPE) and also works with Portico and the LOCKSS initiative for digital archive preservation.

\*Related content and download information correct at time of download.

# **Coping with irrationality in orthodox neoclassical economic theory: Moralization as expedient theorizing**

2<sup>nd</sup> revised version, February 2016, IJOA

## **Introduction**

The concept of rationality is one of the most convoluted, yet influential terms in the social and economic sciences. The term *ratio*, the root of rationality, derives from the Latin's "reckoning, numbering, calculation; business affair, procedure," but also meaning "reason, reasoning, judgment, understanding," in turn derived from the verb *veri*, "to reckon, calculate," but also, more widely, "think." In many cases, and almost without any exceptions in economic theory, rationality is used as a term to discriminate against models of thinking held in lower esteem, more or less associated with ignorance or, more generally, with unqualified thought. As Thomas Paine (1995: 169) remarked in his *The Rights of Man* (1791), ignorance is widely treated as what is once "dispelled," "it is impossible to re-establish it." Therefore, Paine deduces, ignorance is not "a thing of itself," but rather denotes the "absence of knowledge," and consequently, man can be *kept* ignorant, but he cannot be *made* ignorant. No wonder social reformers, politicians, and educators have been adamant in instituting social mechanisms that unveil the mysteries of life to the wider public, making mythology, legend, inherited true beliefs, and other forms of traditional ways of thinking suspicious in the eyes of the rationalist thinker.

Unfortunately, the very idea of an immaculate and unrestrained human faculty of reason is per se part of a modern-day mythology of part of the secular theology rendering reason and rational thinking the *only* legitimate and accurate basis for human cognition and, by implication, human decision making. In fact, orthodox neoclassical economic theory and its reliance on rational choice theory, not only to formulate theoretical models being tested against empirical evidence and hence modified in relevant ways to enable precision in predictions made, but as the foundation of economic theory, is succumbing to the inflexibility of their own models. That is, economists fail to effectively transcend the theoretical models guiding the empirical data collection, thus making data collection a self-referencing procedure wherein the data recognized and collected of necessity comply with the initial theoretical standards and models. This in turn leads inevitably to the amassing of what Thomas S. Kuhn (1962) refers to as *anomalies*, empirical evidence that cannot be accommodated by, nor

explained on basis of available theoretical framework. In the sciences, the accumulation of anomalies precedes the overturning of a scientific program, but in economic theory, demonstrating performative qualities (Esposito, 2013; Svetlova, 2012; Mackenzie, Muniesa, and Siu, 2007; Mackenzie, 2006) and developed in close proximity to policy-making and polity at large, such anomalies can be explained on basis of the rationality criteria that constitute available theoretical models, serving to disqualify substantial shares of human action. In other words, rather than modifying theoretical frameworks and its underlying axioms and positions in the face of emerging empirical evidence not yet effectively accommodated by available theoretical models, orthodox neoclassical economists are instead suggesting that the territory should better converge towards the map.

Worse still, a variety of social and psychological mechanisms such as the inability to comply with theoretical prescriptions regarding rational behaviour is addressed in paternalist and condescending terms. For instance, Richard Rorty (2007: 58) suggests that in the contemporary society, preoccupied with instrumental rationality seated in individualized preferences and incentive systems, *irrationality* is not only thought of as “a blamable failure to exercise an innate faculty”—it has become “the secular equivalent of sin.” In a similar vein, Kafka (2012: 10) suggests that the presence of incompetence, indifference, or corruption (i.e., forms of irrationality) in e.g., political institutions, public sector organizations, or in companies is understood as a “secular theodicy.” It is no coincidence, *arguendo*, that both Rorty (2007) and Kafka (2012) use theological concepts to explain how irrationality is today not only deplored or frowned upon, but widely regarded as a violation of the very foundation of the socio-economic system, based on calculative practices and the ethos of individualization and oriented towards the optimization of utility. The firm belief in the virtues of rationality—instrumental and, again, encapsulated in the insular, autonomous social actor—thus paradoxically belies its own principles, to not betray rational thinking by gliding towards theological beliefs.

This paper discusses how irrationality becomes one of the consequences of the orthodoxy of instrumental rationality assuming that human behavior can be effectively captured by a set of concepts and mechanisms stripped of all social and cultural relations, and how such unwarranted beliefs have increasingly informed not only policy-making but also served as a basis for the establishment of professional jurisdiction of a new cadre of moral entrepreneurs (with Becker’s [1963] apt phrase), now claiming the right to depict individuals unable to comply with extant rationality prescriptions as being either uninformed or immoral. However, such jurisdictional authority is little more than the enforcement of particular

ideologies in moralist terms, simultaneously veiling the underlying theoretical frameworks from which such assessments and declarations can be made and further fortifying and normalizing the idiosyncratic and dogmatic concept of rationality as the capacity to calculate optimal individual utility under determinate conditions. Introducing the concept of *expedient theorizing* (a concept tangential to Bear and Orr's [1967] critique of Milton Friedman's methodological falsificationalism but not fully explored qua theoretical concept) as the analytical process and construction of additional explanations that follows a failure to empirically substantiate the original theoretical framework, it is suggested that the enforcement of rationality criteria crumble under its own ignorance of human actor's inability to adhere to such strictly defined criteria paradoxically recourse to morality. The core of rational-actor theories are thus surrounded by moral entrepreneurship in the form of expedient theorizing to save the core theory. The paper concludes that several economic and managerial problems derive from the elimination of self-correcting mechanisms that would undermine the legitimacy of doctrinaire claims regarding "other people's rationality." If rationality would have been understood in its more compromised, yet far more realistic terms (i.e., as in Herbert Simon's [1957] term *bounded rationality*), several economic issues and concerns could have been addressed, managed, and perhaps also counteracted in substantially more effective ways. Ultimately, the paper concludes, scientific authority should preferably be granted on basis of predictive accuracy and/or practical relevance, not on basis of self-declared intellectual brilliance and/or morally superior standing. Such argument still resides in the ignorance that Thomas Paine and countless latter-day commentators have deplored as an impediment towards social reform and modernization.

The paper is structured accordingly: First, The concept of expedient theorizing is introduced. Thereafter, the concept of rationality as it is enacted in orthodox neoclassical economic theory is situated in a specific historical and cultural context, that of the cold war era Western democracy and free-market capitalism and the American society more specifically. Third, the concept of rationality will be examined as one of the cornerstone concepts of neoclassical economic theory. The self-declared authority to determine what qualifies as rational action is in turn discussed as what constitute orthodox neoclassical economic theorists as a secular priesthood, proclaiming that it holds esoteric insights into the inner workings of (economic) life. However, as few, if any, human actors are capable of living up to strictly defined rationality criteria, orthodox neoclassical economists recourse to morality to save the logical consistency of their own theoretical propositions, leading to economic theorizing as an exercise in moral entrepreneurship. This imbrication of hyper-

rationality and its anathema—the use of fuzzy, socially derived terms such as moral and morality—is argued to be part of what is referred to as expedient theorizing. After making this point, that economic theory must contain what it initially dismissed as irrelevant complications in the process of theorizing, some theoretical and practical implications are addressed.

### **The concept of expedient theorizing**

The concept of theorizing is commonly introduced in the social sciences as an inventive and essentially creative component of all empirical or conceptual research work (Wick, 1989; Svedberg, 2012; Becker, 1989). Through theorizing, the researchers is capable of bridging imaginative capacities, linguistic and stylistic innovativeness, and a “feel for the object matter” (see e.g., Keller, 1983: 148) in order to craft texts that are not only “interesting” and but preferably also “likeable” and, ultimately, “believable” or “credible” (Barley, 2006: 16). When theorizing, the researcher wants to accommodate the largest possible share of the empirical material in the theoretical models articulated; what falls outside of the theoretical net cast over the empirical material become the residual or the supplement—that which is never fully contained by the favoured explanation. In order to save the theoretical model, *ad hoc* hypotheses are frequently added to justify how a certain share of the data remains unexplained by the extant theory.

In this article, the concept of *expedient theorizing* will be introduced and used to explain how the failure to act in accordance with the ideal-typical rational behaviour prescribed by orthodox neoclassical economic theory is complemented by forms of moralizing to save the underlying conceptual neoclassical model. The concept of *expediency* denotes the practice of using self-serving means to accomplish specific goals. Such means are advantageous for the actor rather than being fair and just. A politician, guided by expediency, uses whatever means at hand rather than relying on principles or standards. Following this definition, expediency and what is expedient denote an actor’s attempt to bypass troublesome conditions or precarious situations by seeking the path of least resistance, to neutralize challenges by e.g., invoking arguments that may not be entirely credible and logically consistent but that nevertheless resolves the situation at hand. *Expedient theorizing* is thus a subset of theorizing that serve to secure the credibility and status of the core theory by adding *ad hoc* hypothesis and alternative explanations for the empirical conditions and observations that fails to be explained on basis of the core theory. Expedient theorizing thus serve to

neutralize and contain the critique of the core theory that surfaces whenever empirical data is no longer effectively explained by the theory that purports to make sense out of the data. In other words, expedient theorizing is the theorist's recourse to complementary explanations in order to secure the consistency and legitimacy of the core theory; expedient theorizing is the *reactive* response to logical inconsistencies and/or analytical failures that need to be separated from the privileged theoretical framework. While theorizing is a *process*, in Swedberg (2012: 34) formulation, wherein the researcher's "[i]magination, intuition, and capacity for abduction all need to be observed, reflected upon, and developed by each individual, in his or her own unique and personal way," expedient theorizing is strict matter of securing privileges and influence within an academic field, a form of political entrenchment of jurisdictional authority that may come under pressure if not adequate measures are taken.

In the following, the concept of instrumental rationality will be examined as what is constitutive of orthodox neoclassical theory and how the failure of certain individuals to adhere to strictly defined standards for rational behaviour are subject to expedient theorizing, often in terms of moralism and the failure to carry individual responsibilities. In pursuing this objective, the concept of rationality as it is enacted within orthodox neoclassical theory is situated within specific historical and political contexts.

### **The concept of rationality**

Orthodox neoclassical economic theory, structured around *Rational Choice Theory* (RTC), is closely bound up with what Erickson et al. (2013) refer to as *cold war rationality*, the specific research projects initiated during and after the World War II to define standards for rational behavior that would secure free-market economics and democratic politics. The cold war rationality was characterized by "[s]tripped-down formalism, economic calculations, optimization, analogical reasoning from experimental microcosms, and towering ambitions," Erickson et al. (2013: 5) argue. RTC, the most persistent and widespread models developed on basis of cold war rationality, is based on a series of assumptions and conditions:

RTC can be described by a set of postulates . . . The first postulate, P1, states that any social phenomenon is the effect of individual decisions, actions, attitudes, etc. (individualism). The second postulate, P2, states that, in principle at least, an action can be understood (understanding). As some actions can be understood without being rational, a third postulate, P3, states that any action is caused by reasons in the mind of the individual (rationality). A fourth postulate, P4, assumes that these reasons derive from consideration by the actor of the consequences of his or her actions as he or she sees them (consequentialism, instrumentalism). A

fifth postulate, P5, states that actors are concerned mainly with the consequences to themselves of their own action (egoism). A sixth postulate, P6, maintains that actors are able to distinguish the costs and benefits alternative lines of action and that they choose the line of action with the most favourable balance (maximization, optimization). (Boudon, 2003: 3-4)

Above all, RTC is based on the assumptions that preferences are endogenous and stable over time, by and large independent of social and cultural context:

Rational choice theory presupposes that rational agents have a consistent set of preferences and act to obtain that which they most prefer. The theory pertains to both parametric environments and strategic environments with other self-interested rational actors, as well as to uncertain and risky circumstances. The term ‘self-interest’ encompasses both selfish and altruistic preferences, although most often theorists accept that agents are self-interested in a narrowly constructed, self-oriented manner. (Amadae, 2003: 5)

Furthermore, this rationality should be *formal*, and therefore also largely “independent of personality and context” (Erickson et al., 2013: 3). In many cases, algorithms was developed to provide “[o]ptimal solutions to given problems, or delineate the most efficient means toward certain given goals” (Erickson et al., 2013: 3).

Modeled on basis of classical mechanics (Murphy, 1995: 158), rational choice theory has become almost synonymous with “rationality,” but this specific form of instrumental rationality remains an ideal-typical “economic rationality” (Daston, 2015: 675). Rather than rendering RTC as an “economic theory of rationality,” bound up with the various assumptions and simplifications made in neoclassical economic theory, this economic rationality has “simply swallowed up rationality,” Daston (2015: 675) says. As social scientists and humanities scholars (e.g. science and technology historians) have argued time and again, RTC may be helpful is specifying formal elements of instrumental rationality, but as human behaviour is at times (but not always) poorly and insufficiently predicted by mathematical algorithms and formalist theorizing and calculation, substantial parts of human behavior fall outside of the RTC models. One such standard challenge for RTC theorists and game theorists (an application of RTC in competitive and collaborative games) is the Prisoner’s dilemma, where the assumption of egoism (Boudon’s, 2003, fifth postulate above) leads to suboptimal outcomes for the two actors—an outcome that clearly violates the propositions of RTC, allegedly rewarding “rational” behavior:

In the world of rational choice theory, betrayal in the Prisoner’s dilemma, which is thought to be characterize many aspects of human relationships, is not just commonplace, but a rationally sanctioned norm . . . [F]or rational choice theorists, the litmus test for a rational choice liberal is one who defects when confronted by

a Prisoner's dilemma, and cheats in collective action scenarios unless it is clearly in his interest to do otherwise. It is impossible to reconcile these two staunchly anticommunist positions that are equally opposed to totalitarianism yet contradict one another. (Amadae, 2003: 295)

As a consequence, Amadae (2003: 296) argues, "to insist that human behaviour be understood, even predicted, in terms of a well-ordered set of transitive preferences combined with strategic calculations of how to maximize expected utility is to nullify modes of existence not structured around payoffs; love, sympathy, respect, duty, and valor fall by the wayside." In this way, the human tendency (under e.g., the conditions specified by Amadae above) to treat other humans as "ends in themselves" has no basis in rational choice reason; this is where reason becomes unreasonable, almost "losing its mind," Amadae (2003) and Erickson et al. (2013) claim. Instrumental reason do in fact has much application in the economy, in politics, and in science, but to consecrate rational choice behavior as the only legitimate and reasonable mode of thinking is to confuse and mix up an economic theory of rationality and rationality per se. These two modes of thinking are not of necessity overlapping and nor is the failure to demonstrate the capacity to act in accordance with formalist model of rational behavior to be dismissed as a cognitive deficit or a failure.

In summary, during the cold war period, economists and social theorists were enrolled in the project to define standards for rational behaviour that serve to fortify and secure free-market capitalism and liberal democracy. Being informed by classical mechanics, cybernetics theory, and other post-World War II research programs, rooted in the advancement of mathematics and information theory, the cold war rationality produced rational choice theory, a seemingly logically consistent and theoretically robust analytical model that disqualify overly culturally embedded and affective components of human decision making. Unfortunately, this ambitious program to formalize timeless and context-free rational models ignored or marginalized certain aspects of human behavior and cognition. To contain and neutralize this analytical failure, orthodox neoclassical economic theory recourse to expedient theorizing, adding additional explanations to their supposedly inclusive and comprehensive analytical models, including RTC.

### **Rationality in orthodox neoclassical economic theory**

To start with, when the term orthodox neoclassical economic theory is used in the following, it is an analytical term used to denote economic theory based on RTC that dismisses explanations of economic conditions and phenomenon on basis of non-individual behaviour.



That is, orthodox neoclassical economic theory is based on formalist and instrumental models of rationality and demands methodological individualism, rendering economic conditions the outcome from essentially uncoordinated individual economic choices.

The renowned economist Kenneth Arrow (1974: 16) praises the concept of rationality that he and his fellow economists seek to bestow upon the world as part of their jurisdictional authority: “An economist by training think of himself as a guardian of rationality, the ascriber of rationality to others, and the prescriber of rationality to the social world.” Few concepts in the economic and social theory vocabulary are more entangled with controversy and misunderstanding than the term rationality. As Ellickson (1989: 55) notes, the rational-actor model of human behaviour advocated by mainstream economists “has had no peer” in the social sciences, even though the social sciences is intensely preoccupied with understanding social action, agency, and practices. Ellickson (1989: 23) suggests that “[t]he assumption of rationality exaggerates actual human cognitive capacities,” and Mehta (2013: 1245) adds that “methodological individualism”—“the primacy place given to the atomized and self-regarding individual”—makes a series of assumptions regarding “human reasoning.” Mehta (2013: 1246. Emphasis in the original) postulates methodological individualism is “*instrumental* in orientation, coupled with the notion that the individual acts as if drawing on *mathematical logic*.” Stiglitz (2010: 249) says that, “What economists mean by rationality is not exactly what most people mean. What economists mean is better described as *consistency*.” That is, rather than drawing on some immaculate decision-making logic, rational human actors use the same decision-making criteria over time, i.e., their behaviour is consistent and thus predictable. Unfortunately, such consistency remains an unattainable ideal rather than an observable fact, Stiglitz suggests: “Research over the last quarter century has shown that individuals do act consistently—but in ways that are markedly different from those predicted by the standard model of rationality. They are, in this sense, predictably irrational” (Stiglitz, 2010: 250). In fact, Stiglitz (2010: 245) continues, “Economics is supposed to be a predictive science, yet many of the key predictions of neoclassical economics can easily be rejected.”

Ellickson (1989: 55) proposes that the rational-actor model fails to admit two widely observed social conditions, i.e., the “frailty of human cognition and the possibility of a self-enforced altruism arising from the influence of culture.” In countless social science texts, the rational-actor model and accompanying rational choice methodologies derived therefrom have been portrayed as an unrealistic and potentially deceiving model for human behavior (Guillén et al., 2002; Hirsch, Michaels, and Friedman, 1987). Just as many times, economists have

averted such criticism by making references to the allegedly important theory building process as being conducive to more efficient and accurate policies, in turn claimed to benefit all social actors. Such claims have in turn been denied on the very basis of the orthodoxies immanent to the very theoretical models. Despite these disciplinary disputes, the recent history of the economics discipline is essentially a success story (Fourcade, 2009), gradually advancing its position and influence in policy-making quarters and in society at large, potentially on basis of its ability to present economic ideas capable of guiding and structuring social actions, regardless of their accuracy. Thus, the proficiency of economic theory advocacy derives essentially from its spokespersons' willingness to tolerate conceptual simplification for the benefit of disciplinary unification and joint advocacy of economic principles and policies. However, all social scientists and economists know that theories in books is one thing, and policy-making another (Reay, 2012: 72-73; Campbell, 2002), and therefore the critique of economic orthodoxies are most likely to surface in the event of major economic turmoil and crises.

The finance industry collapse of 2008, was one such historical moment—more or less officially unleashed with the announcement of the bankruptcy of Lehman Brothers in mid-September 2008 (Eichengren, 2015; Blinder, 2013)—leading to a tsunami of critique of neoclassical economic theory. Yet, once again, the critique of unrealistic assumptions and modeling regarding e.g., the efficacy of market pricing, was neutralized and muted, testifying to the disciplinary fortification of key economic principles and methodological frameworks. Not the least did heterodox economists not spare their fury vis-à-vis e.g., free-market protagonists, and pointed at the orthodoxy of the rationality criteria as one foundational, doctrinaire fallacy being part of the inadequate policy-making. “[H]uman subjects act in ways that bear little resemblance to how they are assumed to act in rational-expectation models. Real-world people do not exhibit ultra-rationality,” Colander et al. (2009: 257) write. “Rather,” they (2009: 257) continue, “agents display various forms of ‘bounded rationality,’ using heuristic decision rules and displaying inertia in their reactions to new information.” Such statements were not new, but had been repeated over and over in the social science and economic literature. The psychologists Amos Tversky and Daniel Kahneman (1981), show that preferences guide decisions, but rather than being exogenously given (as assumed by rational choice theory), preferences are situated and contingent (what Tversky and Kahneman call “variation of framing”) on the specific situation wherein a choice is made: “In order to avoid the difficult problem of justifying values, the modern theory of rational choice has adopted the coherence of specific preferences as the sole criterion of rationality . . . However, this susceptibility of preferences to variation of framing

raises doubt about the feasibility and adequacy of the coherence criterion” (Tversky and Kahneman, 1981: 458). More recently, the use of neurology research to reveal the mysteries of human decision making, per se a field of research demonstrating certain orthodoxies in terms of its epistemological realism (Rose and Abi-Rached, 2013; Pickersgill, 2011; Cohn, 2004) and its exclusively favouring individual cognitive processes over social interaction in its analytical model, have further strengthened the view that the rational-actor model is an inadequate basis for economic theorizing:

‘[I]t has become abundantly evident,’ wrote two neuroscientists in the introduction to a special issue of *Neuron* published in 2002, ‘that the pristine assumptions of the “standard economic model”—that individuals operate as optimal decision makers in maximizing utility—are in direct violation of even the most basic facts about human behavior’ (Cohen and Blum, 2002: 197). (Schüll and Zalom, 2011: 518)

If the rational actor model of human behaviour is unsubstantiated, theoretically incredible, and counter-intuitive, there is need for proposing alternative theories and models. Minsky (1996: 358) suggests that the economy (the economists’ primary object of analysis) is composed of decentralized systems wherein “a myriad of independent agents make decisions whose impacts are aggregated into outcomes that emerge over a range of tomorrows,” thus making *uncertainty* one of the key properties of the economic system. Furthermore, economic agents fashion their own models of the economic system that they believe can guide their actions to produce beneficial outcomes (see e.g., Chong and Tuckett, 2015; Mackenzie, 2006; Beunza and Stark, 2004). For instance, economic actors such as managers overseeing corporations make use of what Baumol (1959: 28-29) call “rules of thumb” to stick to some useful model in their day-to-day work. Still, agents are in many cases unsure about the validity of these models until after the fact, and therefore, Minsky (1996: 358) says, they “impute such uncertainty to the other actors in the economy.” Minsky here points at two principal deviations from the orthodox model, namely that everyday economic action is boundedly rational (i.e., decision models are not inadequate, yet cannot effectively accommodate all contingencies in a reasonably complex economic system) and that it is informed by social relations (i.e., the spread of uncertainty in an economic system). This in turn underlines how institutional factors inform economic system and human behaviour, a view widely endorsed by economic sociologists:

Economic sociology’s principal insight is that rational behavior is socially produced. That is, rational behavior is learned rather than innate, with the learning process influenced by persuasion, networks, and power . . . Not only do we learn rational behavior, but what this behavior entails can (and does) vary by context.

By contract, the leading, atomistic view in economics glosses over context. (Dobbin and Dowd, 2000: 651)

That is, in the sociological imagination, it is institutions (both in practico-political and cultural-cognitive sense of the term) also in the economic system of competitive capitalism, otherwise holding calculative practices and numerical, mathematized reason in esteem, that shape and inform human action “In a community’s scheme of life, institutions lay down the conditions for gaining reputability, governing the norms regarding the engagement in leisure and unproductive consumption,” Gammon and Wigan (2015: 113) argue: “Even in capitalism, wealth is an imperfect correlate of reputability, with lineage, etiquette, manners, language and education delineating gradations of reputability.”

Proponents of orthodox neoclassical economic theory are too ready to dispense with the assumptions that social factors such as institutions inform human action, if nothing else for the economization of theory, where the influence of social factors is deemed to obscure rather than enlighten the object matter. The price paid for this theoretical parsimony and conceptual elegance is that theories at hand are capable of explaining only a subset of human actions, leaving much of economic and social life unexplained, or, as will be argued, render it subject to moralization and correction when humans fail to comply with prescribed theoretical models. This leads to economists and other scholars subscribing to the rational-action model becoming a form of self-declared priesthood, holding the key to innermost secrets of the economics of human life, but not yet ready to reveal such insights to a lesser-knowing public, unfit to recognize the truths about economic actions enshrined in orthodox neoclassical economic theory.

In the following, this drifting of the sternest *a priori* principles for rational action into a pseudo-theological advocacy of certain modes of thinking will be examined in some detail. It is proposed that the hard-core rationalism of orthodox neoclassical economic theory accommodates its own failure by instituting mechanisms accommodating empirical data that undermine or compromise the original propositions. The expedient theorizing adds moralist sentiments—per se an extra-rational or even irrational social resource in the underlying original rational model—to avert criticism of the favoured analytical model. Unfortunately, this addendum ultimately undermines the rationality argument being pursued as the extended argument includes logical inconsistencies.

### **Economists as the guardians of instrumental rationality**

In his scathing critique of the neoclassical economic theory's inability to neither predict, nor eventually explain the worldwide breakdown of the finance industry in 2008-2009, Mirowski, (2013: 23) suggests that academic neoclassical economists have surrendered the task to explain what "the economy" is and how it works, simply because mainstream economists no longer believe in such a thing. Rather than *explaining* the economy, economists believe they possess something even grander and more spectacular, namely what Mirowski (2013: 23) names "a Theory of Everything at the End of History"—a universal economic theory and accompanying research method capable of explaining everything human under the sun on basis of a set of elementary parameters including "incentives," "choice," "rents," *etc.* (Davies, 2010: 68); for the orthodox neoclassical economists, there is nothing but economic action and economic freedom, leaving social relations, politics, *etc.*, as little more than deceptive figments of the speculative social theorist's mind. This inflated ambition, to present a generalized theory of economic behavior represent and is indicative of what Mirowski (2013: 23) addresses as the "explanatory hubris" of a discipline: Orthodox neoclassical economic theory is unable to escape "its own special tragedy," the uncompromisable condition that a doctrine that "[n]ominally explains 'everything' in fact explains nothing at all" (Mirowski, 2013: 24).

Against this orthodox belief in theoretical and methodological righteousness, Bennet and Friedman (2008: 238. Original emphasis omitted) address economic theory and its analytical benefits in more sober tone, suggesting that economics is not, as opposed to the natural sciences, "necessarily a science that confers expertise about reality." Instead, lacking mechanism for the "controlled experimentation" and the "empirical testing" of economic theories, economists do not so much describe the real world as they construct a theoretical framework from which they can deduce statements regarding preferred (*i.e.*, rational) action. In principle, Bennet and Friedman (2008: 202) propose, "economists' opinions *per se* have no better grip on reality than did the opinions that were taught to theologians at the University of Paris 700 years ago." Following suit to this critique of orthodox neoclassical economic theory, where proper methods for hypothesis testing and corroboration is unavailable for the discipline but is instead covered by a thick coat of self-assuredness and the insistence on describing actual economic conditions and relations with great precision, Block and Somers (2014: 231) suggests that the principal malaise of the dismal science of economics is its *theoretical realism*, rendering logical deduction from a set of axiomatic propositions and principles rather than empirical observations the foundational tenets of the discipline. Again, economists are not mapping factual conditions but prescribe how economic action should

preferably unfold if all social actors adhered closely to strictly defined rationality criteria. More importantly, these prescriptions are advanced *as if* they were naturally occurring and unrestrained by institutions, legislation, norms, conventions, etc., i.e., in a setting where only a primordial calculative practice remains as the basis for human decision making, a form of socially secluded laboratory cleansed of all the social or cultural traces that render human action meaningful. But if this form of calculative and instrumental reason “comes naturally” as prescribed by the neoclassical orthodoxy, Block and Somers (2014: 234) ask, why is this “truth” then “hidden from all but the anointed knowers” (i.e., the small clergy of economists). This is where neoclassicists have to walk the tightrope. On the one hand, they deplore the widespread failure of humans to live up to the standards regarding rational decision-making preached *ex cathedra*, while on the other hand, they firmly believe in their prescriptions as being of relevance “for everyone” and that the inherited “Theory of Everything at the End of History” they possess is the ultimate, conclusive, and thus, by implication, morally superior model of human action, conducive to a series of benefits including economic freedom, efficiency, and—self-referentially—“rationality” per se. In this worldview, through the very enactment of a world populated by humans yet devoid of non-economic factors worthy of scholarly attention or governance, “[r]eality becomes a matter of deductive reasoning, which builds from arbitrary assumptions that can never be democratically adjudicated” (Block and Somers, 2014: 234); expressed differently, “[t]his type of economic reasoning relies on the special capacities of the few, those who are the priests of philosophical logic rather than of empirical observation” (Block and Somers, 2014: 234).

This type of critique may appear as resentful and overtly hairsplitting, but orthodox undersocialized (with Granovetter’s, 1985, apt term) economic theory and its methodological individualism do in fact have quite substantial implications. “I find the formulations regarding human behavior and organizations by the economists to be not only wrong but also dangerous,” Perrow (1986: 11) remarks, pointing at the role of organizations (i.e., corporations) as one analytical entity that are treated with suspicion in orthodox neoclassical economic theory. As Galbraith (1971: 59) notices, “The entrepreneur—individualistic, restless, with vision, guile and courage—has been the economists’ only hero. The great business organization arouses no similar admiration.” Firms are, *ex hypothesis*, evidence of market failure in orthodox neoclassical economic theory (Coase, [1937] 1991; Williamson, 1981), and as economists have an unquestionable faith in the efficacy of market pricing and transactions, the presence of corporations is a thorny theoretical question as they reduce the aggregated transaction costs vis-à-vis comparable market transactions. In addition,

economists have either been modestly interested in the role of managers (or any firm specific competencies, such as engineers) in these “production functions,” or have simply discredited managers as a source of inefficiencies and slack (Fama and Jensen, 1983; Jensen, 1986). In contrast, the entrepreneur has been widely acclaimed as a key economic actor within what Charles Wright Mills (1951: 34) aptly named “the ideology of utopian capitalism.” By and large, economists disregard both the corporation per se and the management studies and organization theory literature that provide expertise in internal, firm-specific processes (Williamson, 1981). Therefore, the orthodox neoclassical economic theory enforcing rationality as the sole legitimate criteria for human action is not only a subject for armchair disputes and scholarly discussions but carries substantial implications.

### **Moral entrepreneurs and the concept of rationality**

One of the consequences of the rational-actor model and the emphasis on individual incentives and choices is that the economic theories derived from these methodological tenets become the basis for policy-making: “Relevant theory is the result of the exercise of imagination and logical powers on observations that are due to experience: it yields propositions about the operation of an actual economy,” Minsky (1996: 358). In the next stage, Minsky (1986: 139) adds, “theory lends legitimacy to policy.” When the theory both stipulates and idealizes individual decision making on basis of instrumental utility maximization, individual decisions that fails to comply with these rationality standards are either to be treated as anomalies (which would, sooner or later, cast doubt on the theory and methodology per se) or as deplorable deviations from “conventional wisdom” (which saves the theory but render substantial part of the population only limitedly rational, which in turn reinforce the proposition that human actors are after all at best boundedly rational). Therefore, the hyper-rationality of orthodox neoclassical economic method is accompanied by forms of moral thinking that is otherwise excluded from the economic models (see e.g., Ailon, 2012). Shamir (2008: 3) here speaks about the “the moralization of markets,” and suggests that an accompanying and corresponding process of “the economization of morality” are principal consequences of the theoretical work “to ground social relations in the economic rationality of markets.” In a world where all human activities are by definition economic, and thus

structured on basis of the regular set of neoclassical operators including information, incentives, choice alternatives, *etc.*, concepts such as society and politics are understood in strictly economic terms. This process of “processes of economization” still needs to be accompanied by “processes of moralization,” Shamir (2008: 2) proposes, primarily emphasizing that the individual must embrace this new mode of thinking within and through economic variables. In this new mode of thinking, the individual is expected, Gershon (2011: 540) argues, “to act on one’s own calculations.” To act in accordance with an instrumental, calculative logic as prescribed and postulated by orthodox neoclassical economic theory is thus a matter of morality, and not the least a morality that actively promotes risk-taking and acclaims competition. Shamir (2008) suggests that “processes of economization” and “processes of moralization” are aligned and bridged by the concept of *responsibilization*—Ailon (2012: 265) speaks about “hyper-responsibilization”—the individual’s moral responsibility to embrace the new economic mode of thinking.

The market-based economy of orthodox neoclassical economic theory is therefore a moral economy, and morality is the addendum or ad hoc hypothesis saving the theorem that instrumental rationality and utility maximization are naturally occurring phenomena that unfortunately appear to be less common than postulated. Studies of e.g., the soaring levels of debt in e.g., American households (Hyman, 2011; Peñaloza and Barnhart, 2011; Montgomerie, 2009; Barba and Pivetti, 2009) reveal that the postulated utility maximization of human actors is not a substantiated model for the average loan-taker. “Evidence on debt portfolio allocation suggests that consumers are far more efficient at minimizing costs among loans they already have than they are at choosing debt contracts in the marketplace,” Zinman (2015: 253) writes in his review of the literature. Zinman (2015: 260) continues: “Several papers find evidence suggesting that many millions of mortgagers pay hundreds or even thousands of dollars in markups they could avoid with a seemingly modest amount of additional shopping effort or sophistication at origination.” Mehta (2013) suggests that this kind of evidence of “low degrees of rationality” is not widely interpreted in ways that feed back into how the theoretical models are constructed to enable better precision in e.g., the analysis of debt-based consumption and the growth of debt more generally. Instead, the debt-holders examined by Zinman (2015) are, Mehta (2013: 1244), suggests, “pathologized,” and regard their economic decisions to take on loan as “abnormal behavior” and thus treats these individuals as “deviants in need of rehabilitation.” Zinman (2015: 254) identifies three theoretical frameworks shedding light on the low efficiency in debt-holding (formalized into what Zinman refers to as “credit undersupply”): (1) market power, (2)



regulatory failure, and (3) “several varieties of asymmetric information.” But neither of these explanations, all emphasizing structural and regulatory features of the finance market and the credit market are included in the discourse on (hyper)responsibilization and moralization, simply because they move beyond the individual’s autonomous decision to take on debt and points at wider economic relations, not making the atomistic decision-maker the solely deputed economic actor.

Paradoxically, given the theoretical and methodological parsimony of descriptions, the orthodox neoclassical view of agency of necessity gradually accommodate component that are far more fuzzy and fluid (i.e., morality and responsibilities) than the underlying economic theory framework otherwise would tolerate, simply to shield off and neutralize the theoretical model’s own logical inconsistencies and failure to comply with empirical evidence. The unrealistic expectation regarding the economic actors ability to process available information and to deduce rational and consistent choice alternatives from this process leads to disappointment when economic actors apparently fail in this pursuit, leaving little room for anything else than ad hoc hypotheses in the forms of what is here referred to as “expedient theorizing,” the expansion of the initial theoretical framework to save itself from its own analytical and predictive shortcomings. The effect is thus that hyperrational economic theorists need to play the role of what Becker (1963) talks about as *moral entrepreneurs*, actors who participate in prescribing what are morally correct and advisable behaviour within a specific field. The expedient theorizing consistent in precisely the movement from prescribing processes of economization and economic action to processes of moralization, i.e., to align instrumental individualized utility maximization and responsabilization. As orthodox neoclassical economic theory fails to realistically depict economic decision-making, it needs to recourse to morality and the question of responsibility to transfer the culpability from the theorist to the actor. The orthodox neoclassical economic theorists therefore become a ”moralist by default” in the pursuit to save underlying theoretical and methodological theorems from the empirical evidence they fail to accommodate in meaningful ways.

## Discussion

In the contemporary society (or perhaps better, “contemporary economy,” as society *qua* theoretical proposition is an “unnecessary complication” or fiction in the neoclassical

orthodoxy), irrationality—the failure to act in accordance with formal and instrumental rational behaviour—is the modern-day, secular equivalent of sin. As a consequence, irrationality in various forms (i.e., evidence of incompetence, failure, technological breakdowns, fraud, *etc.*) are understood as a secular theodice—a conundrum defying rational explanation. Orthodox neoclassical economic theory today constitutes the intellectual infrastructure of contemporary economies, prescribing how various economic and political objectives are best attained, but its underlying theorems and propositions regarding human rationality remain contested. In fact, as heterodox economists such as Colander et al. (2009: 260) are not shy to admit, “In much of the macroeconomics and finance literature, there is an almost scholastic acceptance of axiomatic first principles . . . independent of any empirical evidence.” They continue:

Even dramatic differences between the model’s behavior and empirical data are not taken as evidence against the model’s underlying axiom. Quite in contrast to what one would expect of an applied science, most of the contemporary work in macroeconomics and finance is thus characterized by pre-analytical belief in the validity of certain models that are never meaningfully exposed to empirical cases. (Colander et al., 2009: 260)

The consequences of this failure to institute mechanisms for critical self-correction, the very mark of a scientific pursuit and discipline (Canguilhem, 1989), is that orthodox economic theory renders much mundane, taken-for-granted human action irrational (or “sub-rational”) as these human actors face amounts of information and contingencies they cannot cognitively process in the manner prescribed by analytical models (Buturovic and Tasic, 2015). A more interesting consequence from a social science perspective is how the neoclassical economic research program (with Lakatos’s, 1970, terminology) rely on *expedient theorizing*, theorizing that of necessity follows from initial faulty propositions, leading to inadequate predictions and ineffective policy recommendations, and that serves to save the core of the scientific program—in this case, the theorem regarding individual utility maximization as the *only* legitimate and morally correct blueprint for human decision-making.

Theorizing is forward-oriented at heart, aimed at capturing essential and socially relevant features of underlying empirical conditions, seated in scholarly inventiveness and imaginary and literary skills; expedient theorizing is its derivate process, where the failure to present watertight and empirically substantiated theories needs to be complemented by ad hoc explanations. In the specific case of the rational choice theory (economic) decision-making, the accompanying expedient theorizing recurses to morals and moralization—centered on the term responsibilities, always individual, never collective—to neutralize analytical shortcomings; if people fail to comply with prescribed theoretical models when conducting

economic decisions (e.g., to take on excessive debt), it is not the theories that are to blame, but the culpability accrues entirely to the ignorant and uninformed decision maker (see e.g., Zinman, 2015; Mahmud, 2012; Peñaloza and Barnhart, 2011). This expedient theorizing, the addendum to the orthodox neoclassical neoclassical model, leads to many absurd statements and policy recommendations (see e.g., Becker, 1968), understandable and reasonable only from the privileged vantage point of the allegedly intellectually and, by implication, morally superior “priesthood” of card-carrying neoclassical economists.

## Conclusion

The American poet and essayist Ralph Waldo Emerson (cited in Geertz, 1975: 23) declared acerbically that “the foolish consistency is the hobgoblin of little minds.” The intolerance for variation and what is manifold is therefore not the signature of noble and bountiful theorizing but is what represses and restrains thinking. Blaise Pascal (1995: 55) wrote in his *Essays* that there are two types of excesses, both equally vexed: “To exclude reason, to admit nothing but reason.” Hirsch, Michaels, and Friedman (1989: 320) stress how such blind faith in the efficacy of reason comes at a cost: “Economics pay a heavy price for the very simplicity and elegance of their models: empirical ignorance, misunderstandings, and, relatedly, unrealistic and bizarre policy recommendations.” Yet, there is little rhyme and reason in simply accusing orthodox neoclassical economic theory for its shortcomings without pointing at the implications from such failures and to point at alternatives. This article has emphasized how the hyper-rational, atomistic model of human economic behaviour paradoxically leads to moralization and moral entrepreneurship becoming an integral component of economic theorizing. Thus morality, a human resource otherwise entirely alien to the parsimonious and conceptually strict neoclassical economic research program, becomes an auxiliary factor in economic decision-making, an “absent presence” in the economic model. Moral entrepreneurship does not present itself in the form of a straightforward moralist preaching *ex cathedra*—declaring, “Thou shalt not conduct irrational decisions!”—but instead it operates through what can be referred to as “infra-theoretical procedures” and instituted practices wherein deviations from prescribed decision-making models are treated as aberrant behaviour and are only pathologized after the fact (see e.g., Ailon, 2012). This form of expedient theorizing is thus of central importance for the jurisdictional authority of orthodox neoclassical economic theory and the rampant disciplinary colonialism observed over the last decades (Davies, 2010). The concept of expedient theorizing is therefore helpful in laying

bare the mechanisms that serve to familiarize and normalize theoretical propositions that only explain and theorize a subset of the empirical material. In the face of analytical and predictive failures, expedient theorizing serves to transfer culpability from theory to external agents, now being portrayed as (in the case of rising household debt) as being “uninformed,” “irresponsible,” or even “irrational,” but never to be treated as foremost social and economic consequence of the expansion of credit and the finance industry more widely during the last two decades (see e.g., Calomiris and Haber, 2014; Mcfall, 2014; Mian and Sufi, 2009). Expedient theorizing is therefore at the very heart of the political economy of truth, reproduced on everyday basis in academic quarters and policy-making communities, at times rendering everyday human behavior subject to corrective and disciplinary action on basis of abstract economic ideas.

## References

- Ailon, G. (2012), “The discursive management of financial risk scandals: The case of Wall Street journal commentaries on LTCM and Enron,” *Qualitative Sociology*, Vol. 35, No. 3, pp. 251-270.
- Amadae, SM (2003), *Rationalizing capitalist democracy: The cold war origins of rational choice liberalism*, Chicago & London: The University of Chicago Press.
- Arrow, KJ (1974), *The Limits of Organization*, New York: W.W. Norton
- Barba, A and Pivetti, M (2009), “Rising household debt: Its causes and macroeconomic implications—a long-period analysis,” *Cambridge Journal of Economics*, Vol. 33, No. 1, pp. 113–137.
- Barley, SR (2006), “When I write my masterpiece: Thought on what makes a paper interesting,” *Academy of Management Journal*, Vol. 49, No. 1, pp. 16-20.
- Baumol, WJ (1959), *Business behavior, value and growth*, New York: Macmillan.
- Bear D. V. T. and Orr, D., (1967), “Logic and expediency in economic theorizing,” *Journal of Political Economy*, Vol. 75, No. 2), pp. 188-196.
- Becker GS (1968), “Crime and punishment: An economic approach,” *Journal of Political Economy*, Vol. 76, No. 2, pp. 169-217.
- Becker, HS (1963), *Outsiders: Studies in the Sociology of Deviance*, New York: Free Press.
- Becker, HS (2009), “How to find out how to do qualitative research,” *International Journal of Communication*, Vol. 3, pp. 545-553.
- Bennet, SE and Friedman, J (2008), “The irrelevance of economic theory to understanding economic ignorance,” *Critical Review*, Vol. 20, No. 3, pp. 195-258.
- Beunza, D and Stark, D (2004), “Tools of the trade: the socio-technology of arbitrage in a Wall Street trading room,” *Industrial and Corporate Change*, Vol. 13, No. 2, pp. 369-400
- Blinder, AS (2013), *When the Music Stopped: The Financial Crisis, the Response, and the Work Ahead*, New York: Penguin.
- Block, F, and Somers, MR (2014), *The Power of Market Fundamentalism: Karl Polanyi's critique*, Cambridge & London: Harvard University Press
- Boudon, R., (2003), “Beyond rational choice theory,” *Annual Review of Sociology*, Vol. 29, pp. 1-21.
- Buturovic, Z and Tasic, S (2015) “Kahneman's failed revolution against economic orthodoxy,” *Critical Review*, Vol. 27, No. 2, pp. 127-145.
- Campbell, JL (2002), “Ideas, politics, and public policy,” *Annual Review of Sociology*, Vol. 28, pp. 21-38.
- Canguilhem, G (1989), *A Vital Rationalist: Selected Writings From George Canguilhem*, New York: Zone Books

- Calomiris, C.W. and Haber, S.H., (2014), *Fragile by design: The political origins of banking crises and scarce credit*, Princeton & Oxford: Princeton University Press.
- Chong, K and Tuckett, D (2015), “Constructing conviction through action and narrative: How money managers manage uncertainty and the consequence for financial market functioning, *Socio-Economic Review*, Vol. 13, No. 2, pp. 309–330.
- Coase, R.H., ([1937] 1991), “The nature of the firm, in Williamson, Oliver E. & Winter, Sidney G., eds., (1991), *The nature of the firm: Origin, evolution, and development*, New York & Oxford: Oxford University Press.
- Cohn, S (2004), “Increasing resolution, intensifying ambiguity: An ethnographic account of seeing life in brain scans, *Economy and Society*, Vol. 33, No. 1, pp. 52-76.
- Colander, D, Goldberg, M, Haas, A, Juselius, K, Kirman, A, Lux, T and Sloth, B (2009), “The financial crisis and the systemic failure of the economics profession, *Critical Review*, Vol. 21, No. 2-3, pp. 249-267
- Daston, L., (2015), “Simon and the sirens: A commentary,” *Isis*, Vol. 106, No. 3, pp. 669-676.
- Davies, W (2010), “Economics and the ‘nonsense’ of law: The case of the Chicago antitrust revolution, *Economy and Society*, Vol. 39, No. 1, pp. 64-83.
- Dobbin, F and Dowd, TJ (2000), The market that antitrust built: Public policy, private coercion, and railroad acquisitions, 1825 to 1922, *American Sociological Review*, Vol. 65, No. 5, pp. 631-657.
- Eichengreen, B (2015), *Hall of Mirrors: The Great Depression, the Great Recession, and the Uses - and Misuses - of History*, New York & Oxford: Oxford University Press.
- Ellickson, RC (1989). “Bringing culture and human frailty to rational actors: A critique of classical law and economics. *Chicago-Kent Law Review*, Vol. 65, pp. 23-55.
- Erickson, P, Klein, JL, Daston, L, Lemov, R, Sturm, T and Gordin, MD (2013), *How reason almost lost its mind: The strange career of cold war rationality*, Chicago & London: The University of Chicago Press.
- Espósito, E (2013), “The structures of uncertainty: Performativity and unpredictability in economic operations, *Economy and Society*, Vol. 42, No. 1, pp. 102-129.
- Fama, EF and Jensen, M (1983) “Separation of ownership and control, *Journal of Law and Economics*, Vol. 26, No. 2, pp. 301-325.
- Fourcade, M (2009) *Economists and Societies: Discipline and Profession in the United States, Britain, and France, 1890s to 1990s*, Princeton & London: Princeton University Press.
- Galbraith, JK ([1967] 1971), *The New Industrial State*, 2<sup>nd</sup> ed., Boston: Houghton-Mifflin.
- Gammon, E and Wigan, D (2015) “Veblen, Bataille and financial Innovation , *Theory, Culture & Society*, Vol. 32, No. 4, pp. 105-131.
- Geertz, C (1975). “Common sense as a cultural system. *The Antioch Review*, Vol. 33, No. 1, pp. 5-25
- Gershon, I (2011), “Neoliberal agency. *Current Anthropology*, 52, No. 4, pp. 537-555.
- Granovetter, M., (1985), “Economic action and social structure,” *American Journal of Sociology*, Vol. 91, No., 3, pp. 481-510.
- Guillén, MF, Collins, R, England, P and Meyer, M (2002), “The revival of economic sociology, in Guillén, MF, Collins, R, England, P and Meyer, M, eds., (2002), *The New Economic Sociology: Development in Emerging Fields*, New York: Russell Sage Foundation, pp. 1-32.
- Hirsch, P, Michaels, S and Friedman, R (1987), “‘Dirty hands’ versus ‘clean models’? Is sociology in danger of being seduced by economics?, *Theory and Society*, Vol. 16, No. 3, pp. 317-336
- Hyman, L (2011), *Debtor Nation: The History of America in Red Ink*, Princeton University Press
- Jensen, MC (1986), “Agency costs of free cash flow, corporate finance, and takeovers, *American Economics Review*, Vol. 76, No. 2, pp. 323-329.
- Kafka, B (2012), *The Demon of Writing: Powers and Failures of Paperwork*, New York: Zone Books,
- Keller, EF (1983), *A Feeling For the Organism: The Life and Work of Barbara McClintock*, New York & San Francisco: W.H. Freeman.
- Kuhn, TS (1962), *The Structure of Scientific Revolutions*, Chicago: University of Chicago Press.
- Mackenzie, D (2006), *An Engine, Not A Camera: How Financial Models Shape Markets*, Cambridge & London, The MIT Press.
- Mackenzie, DA, Muniesa, F and Siu, L, eds. (2007), *Do Economists Make Markets? On the Performativity of Economics*, Princeton & Oxford: Princeton University Press

- Mcfall, L., (2014), *Devising consumption: Cultural economies of insurance, credit and spending*, London & New York: Routledge.
- Mahmud, T., (2012), "Debt and discipline," *American Quarterly*, Vol. 64, No. 3, pp. 469-494.
- Mehta, J (2013) "The discourse of bounded rationality in academic and policy arenas: pathologising the errant consumer," *Cambridge Journal of Economics*, Vol. 37, No. 6, pp. 1243–1261.
- Mian, A. and Sufi, A., (2009), "The consequences of mortgage credit expansion: Evidence from the U.S. mortgage default crisis," *The Quarterly Journal of Economics*, Vol. 124, No. 4, pp. 1449-1496
- Mills, CW (1951), *White Collars: The American Middle Class*, Oxford University Press, Oxford.
- Minsky, HP (1986), *Stabilizing an unstable economy: A twentieth century fund report*, New Haven & London: Yale University Press.
- Minsky, HP (1996), "Uncertainty and the institutional structure of capitalist economies," *Journal of Economic Issues* Vol. 30, No. 2, pp. 357-368.
- Mirowski, P (2013), *Never Let A Serious Crisis Go To Waste: How Neoliberalism Survived the Financial Meltdown*, London & New York: Verso.
- Montgomerie, J (2009), "The pursuit of (past) happiness?: Middle-class indebtedness and American financialisation," *New Political Economy*, 14, No. 1, pp. 1-24
- Murphy, J.B., (1995) "Rational choice theory as social physics," *Critical Review*, Vol. 9, Nos. 1-2, pp. 155-174.
- Pascal, B (1966), *Pensées*, London: Penguin.
- Peñaloza, L and Barnhart, M (2011), "Living U.S. Capitalism: The normalization of credit/debt," *Journal of Consumer Research*. Vol. 38, No. 4): S111-S130.
- Perrow, C (1986), *Complex Organizations: A Critical Essay*, New York: McGraw-Hill.
- Pickersgill, M (2011), "Ordering disorder: Knowledge production and uncertainty in neuroscience research," *Science as Culture*, Vol. 20, No. 1, pp. 71-87.
- Reay, MJ (2012), "The flexible unity of economics," *American Journal of Sociology*, Vol. 118, No. 1, pp. 45-87.
- Rose, N, and Abi-Rached, JM (2013), *Neuro: The new brain sciences and the management of the mind*, Princeton & London: Princeton University Press
- Rorty, R (2007), *Philosophical Papers, Vol. 4*, Cambridge University Press.
- Shamir, R (2008), "The age of responsabilization: on market embedded morality," *Economy and Society*, Vol. 37, pp. 1-19.
- Schüll, ND and Zaloom, C (2011), "The shortsighted brain: Neuroeconomics and the governance of choice in time," *Social Studies of Science*, Vol. 41, No. 4, pp. 515-538.
- Stiglitz, JE (2010), *Freefall: America, Free Markets, and the Sinking of the World Economy*, New York & London: WW. Norton.
- Svetlova, E (2012), "On the performative power of financial models," *Economy and Society*, Vol. 41, No. 3, pp. 418-434.
- Swedberg, R (2012), "Theorizing in sociology and social science: Turning to the context of discovery," *Theory and Society*, Vol. 41, pp. 1–40.
- Tversky, A and Kahneman, D (1981), "The framing of decisions and the psychology of choice," *Science*, Vol. 211, No. 4481, pp. 453-458.
- Weick, KE (1989), "Theory construction as disciplined imagination," *Academy of Management Review*, 14, No. 4), 516-553.
- Williamson, OE (1981), "The modern corporation: Origins, evolutions, attributions," *Journal of Economic Literature*, Vol. 19: 1537-1568.
- Zinman, J (2015), "Household debt: Facts, puzzles, theories, and policies," *Annual Review of Economics*, Vol. 7, pp. 251–76.