Toward a transactional theory of decision making: creative rationality as functional coordination in context

Shabnam Mousavi and Jim Garrison

Abstract This paper poses a Deweyan challenge to both the neoclassical framework of rational choice and models of bounded rationality and deliberation, especially the procedural theory of rationality advanced by Herbert Simon. We demonstrate how modern theories on procedural or instrumental rationality trace their origin to the tradition of British empiricism, especially the philosophy of David Hume. Most theories of action such as Simon’s assume actors may control their bodies ‘at will.’ For Dewey, habits are will; we control them when we identify them and condition them through reflective deliberation. To clarify our Deweyan critique, we use empirical research on consumer’s use of mathematical calculation in supermarkets, by Jean Lave, which rejects calculative Turing machine rationality. We argue that a theory that can deal with deliberation regarding incommensurable values better explains economic behavior in the everyday marketplace. Thus, economists would do better to concentrate on social practices in specific contexts and the neurophysiological basis of need and desire.

Keywords: incommensurable values, embodiment, bounded rationality, non-teleological intentionality, deliberation

1 INTRODUCTION

[Ε]very . . . choice sustains a double relation to the self. It reveals the existing self and it forms the future self . . . . Deliberation has an important function . . . because each different possibility . . . presented to the imagination appeals to a different element in the constitution of the self. (Dewey 1985)

Both substantive rationality, associated with the works of Von Neumann and Morgenstern, and the idea of procedural rationality, developed by Herbert Simon, assume a straight-line teleologically intentional theory of rationality; that is, some final ideal end of action. They both assume that there is one predetermined, perfect, and fixed objective goal and one utility maximizing function that ideally optimizes the agent’s utilities given contextual constraints.
Our paper seeks to establish two intertwining theses simultaneously. First, we will show that both substantive and procedural rationality share the same basic utilitarian assumption of teleological intentionality. Second, we demonstrate that on a Deweyan analysis, the ideal of utilitarian ‘optimization’ ultimately guides and constrains both theories. We will illustrate our Deweyan analysis with an empirical ethnographic study of consumer behavior in supermarket shopping. Our main claim is that neither substantive nor procedural rationality can effectively account for actual economic choice. The goal of this paper is to begin to develop a Deweyan theory of deliberation as an alternative to any form of utilitarian, calculative rationality.

Genuine deliberation involves choosing among incommensurable values; or, in Dewey’s theory of deliberation, choosing something that allows the agent to functionally coordinate incommensurable values to the agent’s satisfaction. Since economic actors often literally make choices, for Dewey the process of deliberation requires transaction with the environment that satisfies our needs and desires in such a way that not only must the agent creatively transform the environment, but the agent themselves undergo transformation. Consequently, when the agent chooses, they not only express their existing preferences, they form their future preferences. Indeed, not until the completion of the process of deliberation does the choosing agent know their preferences, nor can they gage their aspiration for securing their preferences.

We are not denying that we have preferences prior to deliberative inquiry, but it is not likely that we know them. Even if we do know them, however, that does not imply we possess them intelligently until after deliberation. Indeed, it is more accurate to say they possess us. As Dewey says ‘Prior to anything which maybe called choice in the sense of deliberate decision come spontaneous selections or preferences. Every appetite . . . goes out with attraction to certain objects, putting them ahead of others in value’ (1985: 287). Thus, the sense of preferences is the first stage of choice that is continued with the spontaneous deliberation that concludes the choice, ‘At last, a preference emerges which is intentional and . . . based on consciousness of the values . . . . We prefer spontaneously, we choose deliberately, knowingly’ (Ibid.).

For Dewey, a genuine problem situation concerns how to coordinate action given incommensurable values. As he sees it, ‘If values did not get in one another’s way, if, that is, the realization of one desire were not incompatible with that of another, there would be no need of reflection’ (1985: 210). Dewey’s argument is neo-Aristotelian. As another neo-Aristotelian, Martha Nussbaum, notes, ‘Aristotle knew of the view that a hallmark of rational choice is the measurement of all alternatives by a single quantitative standard of value. Such a ‘science of measurement,’ in his day as in ours, was motivated by the desire to simplify and render
tractable the bewildering problem of choice among heterogeneous alternatives’ (1990: 56).

Plato is the prime example of those committed to the following three principles identified by Nussbaum: (1) **Metricity**, or the notion that ‘each situation of choice there is some one value, varying only in quantity, that is common to all the alternatives’; (2) **Singleness**, or the assumption that ‘in all situations of choice there is one and the same metric’; (3) **Consequentialism**, or the claim that ‘chosen actions have value not in themselves, but only as instrumental means to the good consequences that they produce’ (Ibid.). Significantly, Simon, the savant of ultra-modern Turing machine functionalism and rationality adheres to all three principles.

For Dewey, ‘Deliberation is a work of discovery. Conflict is acute. . . . Deliberation is not an attempt to do away with this opposition of quality [by reducing it to commensurable quantities]. It is an attempt to uncover the conflict in its full scope and bearing’ (1983: 150). What we discover, or more accurately create, in deliberation is an end that will allow us to functionally coordinate our transactions. Before examining the nature and structure of the emergence of ends in deliberation, though, let us examine the nature of the acute conflict.

The conflict is acute precisely because the values constituting the uncertain situation are incommensurable and yet the agent must coordinate them to achieve a satisfactory union. For Dewey ‘the thing actually at stake in any serious deliberation is not a difference of quantity, but what kind of person one is to become, what sort of self is in the making, what kind of world is making’ (Ibid.). This is a transactional view wherein the choice sustains a double relation to the self, it expresses the present self and forms the future self that will enjoy or abhor the consequences to come. Imaginative deliberation appeals to different elements in the constitution of the self. The situation is conflicted at least in part because the agent participating in it is conflicted. Things are in the making, and deliberate choice influences what eventually is made of the situation.

Dewey boldly asserts, ‘Taken by itself then economic action throws no light upon the nature of satisfaction and the relation of intelligence to it, because the whole question of satisfaction is either taken for granted or else is ignored by it’ (1983: 152). *Simon does not have a deliberative theory of satisfaction.* At best, he only has a theory of satisficing under the assumption that deliberation has already determined a satisfactory state of affairs that would allow an agent to coordinate incommensurable values. Actually, he does not even have that much, as we are about to show. Dewey asserts, ‘In short the attempt to assimilate other activities to the model of economic activity (defined as a calculated pursuit of gain) is morally objectionable because the conception of such a being empirically falsifies empirical facts’ (Ibid.). This is a bold claim, but we will provide empirical evidence later to support it.
What comes next is also a serious challenge to Simon. Dewey acknowledges the passion ‘of pecuniary gain is an undoubtedly powerful fact’ (Ibid.). Still, he concludes:

But it and its importance are affairs of social not of psychological nature. It is not a primary fact, which can be used to account for other phenomena. It depends upon other impulses and habits . . . . It cannot be used to define the nature of desire, effort and satisfaction, because it embodies a socially selected type of desire and satisfaction . . . . It affords, like steeple-chasing, or collecting postage stamps, seeking political office, astronomical observation of the heavens, a special case of desire, effort, and happiness. And like them it is subject to examination, criticism and valuation in the light of the place it occupies the system of developing activities.

(Ibid.)

The pecuniary value of profit or loss is simply one value among other, often incommensurable, values. Only by assuming all other values are analyzable in terms of this one value can the utilitarian maximizers construct their expected utility equations. Such analyses as Simon’s seem to depend on materialistic reductionism.

This paper proceeds as follows: section 2 argues that procedural, or bounded, rationality is only what substantive rationality looks like when placed in an actual context where a psychological rather than merely logical agent is limited by the information available, the cost of information, or their ability to process the information. For both, the assumption remains that the essence of ‘man’ is detached and autonomous pure rationality. Section 3 uses Dewey’s biologically based psychological functionalism to analyze what J.E. Tiles calls ‘Turing functionalism’, or the belief that the mind is a computer (1999: 39–61, especially pp. 52–61). Turing functionalism assumes an ahistorical, decontextualized, dualistic, disembodied, and dispassionate mind functioning independently of the agent’s actions on the environment. Section 4 contrasts what Hans Joas calls John Dewey’s nonteleological theory of intentionality, rational action, and choice with the teleologically intentional structure of procedural and substantive rationality (see Joas 1996). Section 5 discusses the Humian ground that Simon shares with mainstream economists; hence, the similarities between two seemingly different approaches, substantive and procedural, rationality. Section 6 shows how Dewey provides us with what Joas calls a theory of creative action, which includes a theory of creative rationality. Empirical evidence to clarify the usefulness of a Deweyan approach to markets is provided in section 7. Finally, we conclude our argument in section 8 with the claim that a theory of creative rationality in decision-making moves beyond substantive and bounded rationality by rejecting the notion of epistemological giveness of
some given ideal maximizing function that should, normatively, determine choice.

2 SUBSTANTIVE PURE RATIONALITY VS. BOUNDED PROCEDURAL RATIONALITY: MAINTAINING THE BOND OF TELEOLOGICAL INTENTIONALITY

We begin with Herbert Simon’s contrast between substantive and procedural rationality. According to Simon: ‘Behavior is substantively rational when it is appropriate to the achievement of given goals within the limits imposed by given conditions and constraints. Notice that . . . the rationality of behavior depends upon the actor in only a single respect – his goals. Given these goals, the rational behavior is determined entirely by the characteristics of the environment in which it takes place’ (1979: 130). Notice substantive rationality assumes fixed and final goals predetermined by the agent; that is, teleological intentionality. It also assumes an autonomous, unchanging center of self-action that can determine unalterable goals before action, independently of all environmental characteristics. Further, note that the environment is given independent of the agent’s actions upon it. It is a dualistic model in which there is no interaction between agent and environment in either direction, so both agent and context remain unaltered by the process of choice.

In contrast to substantive rationality, according to Simon, ‘Behavior is procedurally rational when it is the outcome of appropriate deliberation. Its procedural rationality depends on the process that generated it’ (Ibid.). Simon writes, ‘When psychologists use the term “rational”, it is usually procedural rationality they have in mind’ (1979: 131). This difference is important because in many ways Simon’s primary achievement was to psychologize economics; we think he chose the wrong psychology. In our opinion, Herbert Simon merely psychologizes standard economic accounts of substantive rationality without fundamentally undermining the ultimate telos of utility optimization or the idea of a predetermined and fixed telos to the activity of rational choice. Further, the essence of the self, its rationality, remains unaltered by the consequences of choice, however much bad choices may corrupt the body. Therefore, we want to look at Simon’s psychology before examining the economic logic of his theory of choice (1985: 22). In the rest of this section, we want to examine what Simon’s psychology means for his theory of bounded economic rationality.

Simon identifies and discusses the psychology of deliberation or choice under four headings; we consider them in his order. First, there is the ‘study of cognitive process.’ Simon writes, ‘procedural rationality is usually studied in problem situations – situations in which the subject must gather information of various kinds and process it in different ways
in order to arrive at a reasonable course of action, a solution to a problem.’ So conceived, there are three main categories of psychological research on cognitive processes: ‘learning, problem solving, and concept attainment.’ We will only examine the processes of learning in our paper. According to Simon, learning research ‘is concerned with the ways in which information is extracted from one problem situation and stored in such a way as to facilitate the solving of similar problems subsequently.’ Problem solving research ‘focuses especially upon the complementary roles of trial-and-error procedures and insights in reaching problem solutions.’ Finally, concept attainment ‘is concerned with the way in which rules or generalization are extracted from a sequence of situations and used to predict subsequent situations’ (1979: 132). Afforded all Dewey has to say about these categories, it is easy to show in the next section that Dewey’s understanding of them deviates significantly from Simon’s scheme.

Next comes ‘computational efficiency’ (Ibid.). Computational efficiency is concerned with the computing time or effort required to solve a problem by a basically serial operating system requiring certain irreducible times to perform. According to Simon, computational efficiency is ‘a search for procedural rationality, and computational mathematics is a normative theory of such rationality.’ Note that rationality remains utilitarian, calculative rationality. What he says next is very important:

In this normative theory, there is no point in prescribing a particular substantively rational solution if there exists no procedure for finding that solution with an acceptable amount of computing effort. So . . . although there exist optimal (substantively rational) solutions for combinatorial problems . . . and although these solutions can be discovered by a finite enumeration of alternatives, actual computation of the optimum is infeasible for problems of any size and complexity.

Notice the telos of rationality remains optimization, although the quantity, complexity, cost of the calculation, etc. necessarily qualifies it. Simon assumes substantive calculative and teleological rationality as the objective, fixed, and final ideal from which bounded rationality deviates only as much as calculative complexity etc. requires.

Then, there is ‘computation: risky decisions.’ Here Simon makes a bold, but, for him, necessary claim: ‘Man, viewed as a thinker, is a system for processing information’ (1979: 133). Simon believes that this fact in conjunction with computational efficiency explain why so much empirical research fails to confirm ‘subjective expected utility’ theory (1979: 134). The mind as computer is one of the five central features of cognitive psychology, according to Howard Gardner (1983: 6).
Finally, there is ‘Man’s computational efficiency.’ Simon boldly asserts, ‘Like a modern digital computer [sic], Man’s equipment for thinking is basically serial in organization.’ Simon qualifies this statement by declaring:

In my comparison of computer and Man, I am leaving out of account the greater sophistication of Man’s input and output system, and the parallel processing capabilities of his senses and his limbs. I will be primarily concerned here with thinking, secondarily with perceiving, and not at all with sensing or acting.

(1979: 135)

Presumably, perceiving implies identifying information (as opposed to processing it) while sensing involves gross experience including feeling. Meanwhile, action is irrelevant. Like the third feature of the cognitive science research program, Simon thinks we may bracket these issues for later study because they do not intrude on ‘Man’s’ essential rationality.

Simon finds, ‘For most problems that Man encounters in the real world, no procedure that he can carry out with his information processing equipment will enable him to discover the optimal solutions’ (1979: 135).

Simon asserts that research on chess playing provides three significant findings on human computational efficiency. First, ‘they have shown how he [the player] compensates for his limited computational capacity by searching very selectively through the immense tree of move possibilities.’ Second, ‘they have shown how he stores in long-term memory a large collection of common patterns . . . together with procedures for exploiting the relations that appear in these patterns.’ The expert chess player has complex heuristics for selective search in conjunction with massive knowledge of significant patterns, which, together, constitutes her procedural rationality in deciding how to move in a game of chess. Finally, and most influentially for Simon’s economic logic of bounded rationality, he states:

Third, the studies have shown how a player forms and modifies his aspirations for a position, so that he can decide when a particular move is ‘good enough’ (satisfices), and can end his search . . . . They depend upon aspiration-like mechanisms to terminate search when a satisfactory alternative has been found.

(1979: 136)

Simon then contrasts this information-processing notion of rationality with substantive rationality. The only difference that makes a difference is that something less than the optimal choice will suffice in computational procedural rationality, not because there is not an optimal choice, but because of the size of the selection set, complexity of calculation, and cost in actual situations.
3 SIMON’S PSYCHOLOGY FROM A DEWEYAN STANDPOINT, AND THEORY OF DELIBERATION: SATISFICING VS. SATISFACTION

We want to look at the biological basis of learning. Economic transactions are organism and environment transactions that transform both. The environments of most interest are social environments involving individuals, social groups, economic institutions that take natural resources and transport or refine them into products that satisfy embodied need and desire. There is a temporality to these trans-actions. Dewey declares: ‘[L]iving may be regarded as a continual rhythm of disequilibrations and recoveries of equilibrium . . . . The state of disturbed equilibration constitutes need. The movement towards its restoration is search and exploration. The recovery is fulfillment or satisfaction’ (1986: 34).

The rhythm of equilibrium–disequilibrium–restoration of equilibrium is a fundamental activity cycle for all living forms. Disturbed equilibration, disruption of functional coordination of organism-environment transaction, is the fundamental problem situation for Dewey. It demands searching, exploring problem solving behavior that for such organisms as *Homo sapiens* leads to deliberation. Dewey finds that living creatures denote ‘presence in activity of need–demand–satisfaction’ (1981: 195–6). We believe this is the most fundamental cycle of all economic activity. It arises out of the rhythmic equilibrium–disequilibrium–restoration of equilibrium activity cycle. The intelligent and eventually logical need–demand–inquiry–satisfaction activity cycle arises out of the fundamental cycle of life and all economic activity without breach of continuity. All living beings aspire to satisfy the demands of life.

In the rhythm of equilibrium–disequilibrium–restoration of equilibrium and the activity cycles it gives rise to, comprises a functional coordination of transactions of which organism and environment, economic agent and context, are subfunctions. According to Dewey,

A certain modification of environment has . . . occurred, though it may be only a change in the conditions which further behavior must meet. On the other hand, there is change in the organic structures that conditions further behavior. This modification constitutes what is termed habit.

(1986: 38)

The agent strives to functionally coordinate the entire problem situation through thought, feeling, and action, not just solving the problem in his mind. The modification of the agent in the transaction transforms the agent. That means the agent’s habits, along with their needs, may alter in the process of striving to satisfy them by functionally coordinating their transactions. That is why every choice sustains a double relation to the self.
For Dewey, ‘Habits are the basis of learning’ (Ibid.). Just as importantly for a theory of choice, Dewey thinks habits are will that ‘form our effective desires and they furnish us with our working capacities. They rule our thoughts’ (1983: 21). For him, habits are general predispositions to respond the same way, specified the same stimulus:

[A]ll habits are affections, that all have projectile power, and that a predisposition formed by a number of specific acts is an immensely more intimate and fundamental part of ourselves than are vague, general, conscious choices. All habits are demands for certain kinds of activity; and they constitute the self.

(Hbid.)

Habits are embodied dispositions to act evincing emotions that constitute the organic basis of learning, the self, psychological, and logical functioning.

We cannot adequately comprehend how habits function apart from their transactions with the habitat that conditions them, especially the social habitat. Dewey insists that ‘habits incorporate an environment within themselves. They are adjustments of the environment, not merely to it’ (1983: 38). Dewey’s theory of learning is completely at odds with that of Simon.

This issue is addressed most clearly in Dewey’s famous paper, ‘The Reflex Arc Concept in Psychology’, which sets forth the functionalism associated with the Chicago School of psychology, sociology, and philosophy (1972). Not surprisingly, Dewey has nothing to say anywhere in The Collected Works, about computers. Still, it is surprisingly easy to convert his refutation of the reflex arc concept into a refutation of information input–output Turing machine functionalism. Dewey writes: ‘The older dualism between sensation and idea is repeated in the current dualism of peripheral and central structures and functions; the older dualism of body and soul finds a distinct echo in the current dualism of stimulus and response’ (1972: 96). We hear the same echo in the dualism of information input and output with the computer as the central processor, structure, and function. If we substitute information input and output for stimulus and response, we can, mutatus mutandis, construct for ourselves a Deweyan critique of Simon and Turing machine functionalism. For all these reasons, it is worth looking at his reconstruction of the reflex arc concept further.⁸

For Dewey, the agent’s actions creatively constitute its information in its transactions with its context. For Simon, the passive agent merely process information it is given. Simon’s information processing model is simply a special instance of the myth of the given. Note, neither stimulus nor response, information input or output, means or ends, are fixed at the beginning of the transaction; instead, they are emergently ‘constituted’ as
a consequence of creative transaction. The results are devastating to the idea of utility maximization as the pursuit of given and fixed goals, subject to specified conditions, constraints, and preferences. Here the goals, preferences, conditions, and constraints emerge in the agent’s transactions with the rest of the functions that constitute the situation in which the transactions themselves constitute a participating subfunction. There is a creative nonteleological structure to the relation of stimulus and response in Dewey’s reflex circle that later differentiates into his nonteleological theory of intentionality, meaning, mind, and rationality as means–ends coordination.

4 DEWEY’S NONTELEOLOGICAL THEORY OF INTENTIONALITY, THE MEANS–ENDS SCHEMA

Almost all theories of action assume intentionality is teleological. Simon’s theory of economic activity is no exception. Hans Joas rejects this stance in his theory of creative action, where he elaborates and expands on what he calls Dewey’s ‘non-teleological interpretation of intentionality’ (1996: 157).

Dewey, like Simon, is committed to some form of procedural, purposeful means-ends rationality, or what Dewey calls instrumentalism. Dewey boldly asserts that ‘rationality is an affair of the relation of means and consequences, not of fixed first principles as ultimate premises or as contents of … criteriology … . Rationality as an abstract conception is precisely the generalized idea of the means–consequence relation as such’ (1986: 17). He eschews all efforts to find eternal, immutable, or supernal rational foundations. Dewey notes, ‘As a general term, “instrumental” stands for the relation of means-consequence, as the basic category for interpretation of logical forms’ (1986: 22 fn.). Dewey remarks:

Reasonableness or rationality has, however, been hypostatized. One of the oldest and must enduring traits in logical theory has converted rationality into a faculty which, when it is actualized in perception of first truths, was called reason and later, Intellectus Purus. The idea of reason as the power, which intuitively apprehends a priori ultimate first principles persists in logical philosophy.

Ironically, from a Deweyan perspective, Simon’s theory of procedural rationality resembles the criteriology of pure reason. That is because Simon adheres to the ideal of detached, pure, substantial rationality; his theory of procedural rationality is merely a concession to the fact that pure rationality must cope with imperfect information or cost of information. The inability to process information is simply a rational deficiency on the part of the agent.
Joas quickly identifies what is wrong with the usual interpretations of the means-ends schema. They assume a predetermined and fixed telos of action. This is precisely what is wrong with Simon’s theory of procedural rationality. For any choice, Simon assumes that there are predetermined and fixed alternatives from among which the agent may choose. His theory confines deliberation to means not ends. For Dewey, deliberation involves both means and ends simultaneously as alternative phases of action.

Borrowing from Dewey, Joas emphasizes the creativity of instrumental means–ends rationality in Dewey’s means–ends schema when he correctly observes that Dewey contrasts ‘action in pursuit of externally set goals’ with ‘the ideal of action infused with meaning’ (1996: 153). Unlike Simon, goals are never external for Dewey, and all mental activity, including rational action, has meaning infused. For Dewey, as Joas observes, it is a mistake to assume ‘the actor generally has a clear goal, and that it only remains to make the appropriate choice of means. On the contrary, the goals of actions are usually relatively undefined, and only become more specific as a consequence of the decision to use particular means’ (1996: 154). As Joas recognizes, ‘Reciprocity of goals and means . . . signifies the interaction of the choice of means and the definition of goals’ (Ibid.). Externally fixed goals lie beyond the reflective process intrinsic to creative action (1996: 155).

Often we ignore unintended consequences because we are not interested in them or are unable to detect them, often to our detriment. Dewey finds it easy to account for unintended consequences of action; they are just aspects of the situation at the conclusion of inquiry that the agent did not consider, anticipate, or attend to, but nonetheless emerged in the agent’s efforts to transform the original situation. The most frequent source of damaging unintended consequences is the failure to realize that an agent’s actions not only transform the world, but, transactionally, they always transform the agent as well. One of the serious shortcomings of Simon’s theory of procedural rationality is that it is incapable of dealing with unintended consequences.

Dewey’s theory of purposeful rationality is not linear means–ends connectionism where means hook up to some predetermined end like the engine to the caboose of a long train. Instead, it is a matter of functional means–ends co-ordination wherein means often constitute the end just as bricks and mortar constitute a building once the architect’s plans are executed. Indeed, like stimulus and response, means and ends mutually constitute each other. That is why we must deliberate about means and ends simultaneously. Simon thinks we only deliberate about means because ends can be given in advance. The result is a mistaken teleological theory psychological intentionality that combines with a mistaken theory of economic rationality.
5 HUME’S THEORY OF RATIONALITY: THE COMMON GROUND FOR SIMON AND ECONOMIC THEORY

It is not hard to locate the source for Simon’s thinking, or that of the entire utilitarian school for that matter. Modern theories on procedural or instrumental rationality trace their origin to the tradition of British empiricism, especially the philosophy of David Hume. In a complete departure from the ancient and medieval stance deriving from Aristotle, Hume considers himself to have ‘prov’d, that reason is perfectly inert, and can never prevent or produce any action’ (1975: 458). Reason may no more serve as a motivation for action than it may serve as an end. Hume concludes, ‘reason alone can never produce any action, or give rise to volition’ (1975: 414). For Hume, ‘Reason is, and ought only to be, the slave of the passions’. On his account, the passions are objects of desire, the agent’s preferences, their goals, reason only serves to guide the passions to completion in some object or end; it may never serve to motivate or cause action. Remember, for Simon the rationality of the agent’s behavior only depends on the agent in a single respect – his goals.

Hume thinks each individual the engineer of a self-acting locomotive fueled by passions of pleasure or pain. Thus fueled the engineer drives the train to a series of destinations, or ends, during his life while reason tells him when to change tracks and couple or uncouple cars along the way. Simon’s theory of psychology and rational economic choice often seems to chug along like Hume’s train. As Joas in effect shows, Dewey defies Hume by running together rational action with creative action.

Dewey’s critique of traditional theories of intentionality imparts a back-and-forth playfulness to Dewey’s means-ends schema that makes it non-teleological. Joas declares:

Dewey rejects the common tendency to distinguish play from work on the grounds that the former is goal-free. According to Dewey, play most certainly does involve goals in the sense of an inner regulation of action ... The goal orientations involved in play are not fixed externally and maintained irrespective of inner resistance to them. Those who play can be said to be free because they are able to abandon or redefine the current goals if their actions no longer promise fulfillment. (1996: 155)

This playfulness releases not only creativity, but also the occasion for freedom in action. For Dewey, ‘Intelligence is the key to freedom in act’ (1983: 210). The exercise of intelligence in Dewey’s instrumental means–consequence logic, the theory of inquiry, is the key to freeing our transactions, including economic transactions, and, indirectly, facilitating self-control.

Deliberation, for Dewey, is playful experimentation that weaves intelligence into embodied need and desire. It involves carrying out
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Experiments to explore various possible lines of action. Dewey thought it best to carry out the experimental ‘trial is in imagination’ because that saves us from actually suffering the consequences. It is best to play with the possibilities rather than suffer the actual consequences. Choice emerges by playing with the functional relations among the various subfunctions of intelligent means–consequence reasoning. Ends-in-view are teleological for Dewey, but they are not fixed. Playfully varying plans as the situation requires, and as the situation becomes clearer, is a crucial part of creative rational action, just as rational action is part of creative action. The capacity to vary plans, to change the course of action is one of Dewey’s conditions of freedom. Teleological theories of intentionality harness us to the carriage of convention.

Thinking this way allows us to reconceive intentional goal setting in a more creative and contextualized way. Accordingly, Joas writes, ‘goal-setting does not take place by an act of the intellect prior to actual action, but is instead the result of a reflection on aspirations and tendencies that are pre-reflective and have already always been operative’ (1996: 158). Where are these aspirations located, one might wonder? Joas’s answer is deceptively simple:

They are located in our bodies. It is the body’s capabilities, habits and ways of relating to the environment, which form the background to all conscious goal-setting . . . our intentionality. Intentionality itself, then, consists in a self-reflective control, which we exercise over our current behavior. If this non-teleological and instead self-reflective conception of intentionality does justice to the matter at hand, then it changes our picture of all action-related phenomena.

(1996: 159)

Bodily habits unconsciously perform many of the functions normally attributed to higher psychological functioning. Rendering the work of unconscious habits conscious through self-reflective inquiry allows us to gain conscious control over our goal-setting activity and, thereby, ourselves.

Besides assuming all action is teleological, most theories of action such as Simon’s assume actors may control their bodies ‘at will’. Joas notes that ‘the body can be controlled in the sense of being deployed for the actor’s purposes is in fact an implicit assumption, for the body does not appear explicitly in most theories of action’ (1996: 167). It certainly does not appear in Simon’s theory. For Dewey, habits are will; we control them when we identify them and condition them through reflective deliberation. For Joas ‘the body cannot simply be taken as the tacit assumption underlying a theory of action’ has to do with ‘the problems of confining the body to an instrumental role.’ So conceived, ‘the body is thought of as a permanently available instrument of pure intentionality’ (1996: 168). For Dewey, control of one’s body emerges slowly and then
only after a long course of reflection between what we do and what we suffer consequently. Simon assumes the body is always under the control of a mind.

6 DEWEY’S REJECTION OF UTILITARIAN CALCULATIVE RATIONALITY

For Dewey, ‘Habits are conditions of intellectual efficiency’ (1983: 121). Negatively, embodied, impassioned habits constrain thought into pre-established channels. The result is ‘mindless action’ in which there is no conscious, reflective thought. On the other hand, ‘Concrete habits do all the perceiving, recognizing, imagining, recalling, judging, conceiving and reasoning that is done . . . . Yet habit does not, of itself, know, for it does not of itself stop to think, observe or remember’ (1983: 124). When embodied habits of action fail, the agent must engage in reflection and deliberation to resolve the problematic situation. That is why learning and growth only occur in states of disequilibrium when the agent must strive to restore functional coordination. Similarly, genuine choice only occurs on such occasions. That is one reason that when we choose, we not only express our existing habitual self, we form our future self.

Wise choice involves considering the consequences for oneself as well as the environment, including other persons. One of Simon’s most serious mistakes is thinking that, as Dewey describes it, ‘knowing and doing have no intrinsic connection with each other. Reason is asserted to have no responsibility to experience’ (1983: 130). Recall that Simon insists his theory of thinking considers perceiving information as secondary and has nothing to do with sensing or acting. In the tradition of Hume, Simon assumes reason is at the disposal of emotion and the body always at the disposal of the agent’s will. Joas states:

The alternative to a teleological interpretation of action, with its inherited dependence on Cartesian dualisms, is to conceive of perception and cognition not as preceding action but rather as a phase of action by which action is directed and redirected in its situational contexts.

(1996: 158)

The dualism of Simon’s thinking is transparent. It is much easier to understand the choices made by living beings if we understand that cognition and perception, along with need, desire, interest, imagination, and experimental action are phases, or subfunctions, of the function of deliberative choice. The human mind is not a disembodied Turing machine. Instead of maximizing utilities or settling for satisficers according to aspiration, living, embodied human beings have economic demands; they strive to satisfy their needs and desires for functional coordination of their transactions.
Simon’s theory of deliberation assumes the mind is a satisficing Turing machine that begins with a fixed and final hierarchy of preferences and strives to choose the one that maximizes this preference hierarchy given such constraints as time, processing power, and cost of information. Compare it to Dewey’s definition of deliberation:

Deliberation is a dramatic rehearsal (in imagination) of various competing possible lines of action. It starts from the blocking of efficient overt action, due to that conflict of prior habit and newly released impulse … Then each habit, each impulse, involved in the temporary suspense of overt action takes its turn in being tried out. Deliberation is an experiment in finding out what the various lines of possible action are really like … But the trial is in imagination, not in overt fact.

(1983: 132–3) 10

Deliberation permits intelligent choice, as it does for Simon, but it does so in an entirely different way. Imagination, embodied habits, innate impulses, emotion, the body, and experimentation are important parts of deliberation for Dewey. For Dewey, imagination is old habits adjusting to new situations. An idea or hypothesis is a product of the imagination. They are possible courses of action that, if carried out, could restore functional coordination. Dewey proposes a theory of creative rationality that, as Joas understands, is an important part of his theory of creative action.11

Dewey asks, ‘What then is choice?’ His answer is simple, ‘Simply hitting in imagination upon an adequate stimulus to the recovery of overt action. Choice is made as soon as some habit, or some combination of elements of habits and impulse, finds a way fully open’ (1983: 134). Notice the reference to determining ‘an adequate stimulus’; Dewey’s theory of rational deliberation is modeled on his reconstruction of the reflex arc concept. Dewey affirms, ‘The primary fact is that man is a being who responds in action to the stimuli of the environment. This fact is complicated in deliberation, but it certainly is not abolished’ (1983: 139, also p. 144). We constitute the object of choice much as we do the object of inquiry, or a stimulus. Said the other way around, choice is the conscious, deliberative, and creative construction of a stimulus object or end that satisfies our need or desire to functionally coordinate our conduct.

Dewey criticizes traditional versions of hedonistic calculation in ways that have consequences for Simon’s more refined procedural version of rationality. Dewey and Simon have very different notions of the good. Dewey indicates, ‘Good consists in the meaning that is experienced to belong to an activity when conflict and entanglement of various incompatible impulses and habits terminate in a unified orderly release in action’ (1983: 146). For Simon, the good maximizes an objective fixed utility function given a hierarchy of values, while for Dewey the good...
unifies thought, feeling, and action within a problematic situation involving incommensurable values. For Dewey the good, unification of action, functional coordination, and satisfaction are the same.

Dewey recognizes that ‘unification which ends thought in act may be only a superficial compromise, not a real decision but a postponement of the issue. Many of our so-called decisions are of this nature’ (Ibid.). Often we settle for less than something that fully unifies a situation because sometimes that is the best we can do. The situation is much like the chess player who modifies her aspirations for a position so she can carry out an action, or make a ‘move,’ that is ‘good enough’. For Dewey, that means it sufficiently coordinates the transaction (the match) such that final unification (winning) is postponed, but possible.

At some level, ‘good enough’ is all Dewey thinks we ever get. He claims, ‘Even the most comprehensive deliberation leading to the most momentous choice only fixes a disposition which has to be continuously applied in new and unforeseen conditions, re-adapted by future deliberation’ (1983: 144). Dewey declares:

The business of reflection in determining the true good cannot be done once for all, as, for instance, making out a table of values arranged in a hierarchical order of higher and lower. It needs to be done, and done over and over and over again, in terms of the conditions of concrete situations as they arise. In short, the need for reflection and insight is perpetually recurring.

(1985: 212)

He wonders, ‘Does not this reduce moral life to the futile toil of Sisyphus.’ Dewey’s answer is yes, if for us progress means a ‘control of conditions’ that excludes the necessity of future deliberations’ but no, if ‘continual search and experimentation to discover more meaning’ is such that it ‘keeps activity alive and growing’ (1983: 144).

Dewey notes that we often yield to temporarily intense impulse that achieves ‘a unity by oppression or suppression, not coordination’ (1983: 146). Simon also insists, ‘behavior [action] tends to be described as ‘irrational’ in psychology when it represents impulsive response to affective mechanisms without an adequate intervention of thought’ (1979: 131). Good chess players do not yield to impulse, suppression, or oppression. Unlike Simon, though, Dewey thinks that good chess players have a larger repertoire of habits as well as the ability to carry out deliberation when those habits fail them, a repertoire that imaginatively explores yielding to various impulses in imagination where their actions (moves) are retrievable. It is not a matter of mentalistic representations corresponding to possible situations in the external world.

What comes next takes us to the core of Dewey’s rejection of utilitarian calculative rationality and, thereby, his implicit rejection of Simon’s
Toward a transactional theory of decision making

Dewey argues that with the utilitarians, ‘Happiness was thus identified with a maximum net gain of pleasure on the basis of analogy with business conducted for pecuniary profit, and directed by means of a science of accounting dealing with quantities of receipts and expenses expressed in definite monetary units’ (1983: 148). He then goes on to assert that ‘there exists a difference in kind between business calculation of profit and loss and deliberation upon what purposes to form’ (1983: 148–9). Simon’s mistake is the same as that of many other utilitarians; he thinks he can reduce all deliberation, all choice, to a business calculation regarding profit and loss, which only involves deliberation about means to preassigned ends. Ironically, such reductionism fails to capture genuine economic behavior. Before seeing why, let us mark the difference between business calculation and genuine deliberation.

Dewey finds mere business calculation an instance of narrow reasoning. According to him, the narrow sense ‘holds a fixed end in view and deliberates only upon means of reaching it.’ Meanwhile, the wider sense ‘regards the end-in-view in deliberation as tentative and permits, nay encourages the coming into view of consequences which will transform it and create a new purpose and plan.’ He goes on to observe that ‘business calculation is obviously of the kind where the end is taken for granted and does not enter into deliberation’ (1983: 149). In the narrow case of having a predetermined end, we may only deliberate about the means. The paradigm is Humian. Passion, i.e., feeling of need and desire, assigns the ends for which it is the office of rationality to find the means. For Dewey, seeking means to secure a predetermined telos is not deliberation at all. Genuine deliberation has a playful nonteleological intentionality wherein ends do not fully emerge until we know the means for securing them; without such means, the end is a fantasy, a wish, not a matter of rational deliberation. Putting it somewhat paradoxically, Dewey states for calculative rationality, ‘Deliberation is not free [or playful] but occurs within the limits of a decision reached by some prior deliberation or else fixed by unthinking [habitual] routine’ (Ibid.).

7 EMPIRICAL EVIDENCE

Jean Lave, a social anthropologist of cognition, has carried out empirical research on consumers’ use of mathematical calculation in supermarkets. The results explicitly reject Simon’s version of calculative Turing machine rationality while strongly bolstering Dewey’s critique. Lave clearly states her fundamental claim, “Cognition” observed in everyday practice is distributed – stretched over, not divided among – mind, body, activity and culturally organized settings (which include other actors)” (1988: 1). She explicitly rejects the ideas of decontextualized, ahistorical
representations that carry out mental function apart from activity along with any dualism that separates mind from body or emotion from cognition. Lave uses the term ‘functionalist’ to correctly characterize ‘the core theoretical formulations of cognitive psychology’ which she sees as committed to these ideas along with that of ‘self-perpetuating, closed, input/output systems’ (1988: fn. p. 190).

According to Lave, ‘What motivates problem-solving activity in everyday situations appears to be dilemmas that require resolution.’ These are not well-defined problems; instead, ‘It is a matter of conflicting values and viable alternatives, which are neither right nor wrong, and one of which is entirely satisfactory.’ In deliberating about incommensurable values we often effectively coordinate our actions the best we can because we simply cannot fully satisfy conflicting demands; there is no one maximizing function. She concludes, ‘There is a shift here in the conception of problem solving activity from a value free, context free technology of [calculative] means, to a value laden, conflict driven, situationally-specific direct form of experience’ (1988: 139). Lave directly attributes such false claims to Simon, along with the belief that choice is ‘body-free and factual’ and ‘consists of hierarchically organized discrete chunks’ in which the ‘social world is acknowledged only in the form of professional occupations, translated immediately into knowledge domains’ (1988: 88–9). She, like Dewey, finds no social context in Simon’s analyses. Economic agents in the marketplace are engaged in contextualized rational action in which perception is not secondary and sense or acting are impossible to ignore, and the conflict of values clear.

Lave calls attention to ‘the virtually error-free arithmetic performance by shoppers who made frequent errors in parallel problems in formal testing situations’ (1988: 158). Calculation in a complex context is curiously different from the contrived ‘puzzles or problems assumed to be objective and factual. They are constructed “off-stage” by experimenters, for, not by, problem solvers.’ The abstract, decontextualized problem assumed the norm of calculation is not the subject’s problem except in the secondary sense of wanting to secure praise or avoid approbation. She concludes that ‘in this genre “problems” are small-scale demands for an acquiescent problem solver to operate on the information given by a problem giver using algorithms or formal inferential reasoning [i.e., programs] to match a correct or ideal answer’ (1988: 35). This genre demands ‘narrow’ deliberation characterized by simple teleological intentionality where the one right answer is predetermined in advance and assigned to the subject to find.

Lave readily acknowledges the value of marginal utility calculations in everyday supermarket shopping. In fact, as Lave’s studies show: ‘In subtraction or difference calculations, the shopper took the difference between prices, then the difference between quantities and made a marginal
utility judgment. Such calculations take the form, “I will get two ounces more for six cents more. Is it worth it?” (1988: 119). Shoppers, even those who do poorly on pencil and paper tests, generally can carry out these calculations to degrees of approximation adequate to making good choices in terms of marginal utility in the supermarket (1988: 158). Calculation can answer questions that have a predetermined, fixed, and final answer, telos, or end. It is deliberation in only the narrowest possible one-dimensional value sense where everything is, obviously, commensurable, but it is not a problem in the wider sense involving choice among incommensurable values. As Lave notes, ‘There is a question about quantitative relations to be resolved, but not a problem for which there is a numerical solution’ (1988: 119). The shoppers’ problem is not calculation, they can in fact do that well enough. They have the processing ability, they have sufficient data, and it does not cost very much, etc. That is not their problem. The shopper’s problem is to functionally coordinate their shopping activity satisfactorily. Lave indicates:

[A]n activity-in-setting that is labeled by its practitioners as a routine chore is in fact a complex improvisation. Descriptions of the activity as ‘habitual’ and ‘routine’ lead shoppers to interpret their own activity as repetitive and highly similar across episodes, rather than to treat its nonmechanical, generative [creative] variability as a defining characteristic. (1988: 155)

Lave recognizes Dewey’s rhythm of equilibrium–disequilibrium–restoration of equilibrium, even though the shoppers may not. Often in her observations ‘activity will unfold unproblematically and effortlessly. In relation to this expectation “problems” take on meaning as conflicting possibilities for activity, or trouble with ongoing activity, that snag or interrupt the process of shopping’ (1988: 156). Habits of action fail us in genuine problem situations; if it were just a matter of making the calculation, then one would only have to acquire the habit, or the computing program. We deliberate when our habits of action fail us and novel impulses are released. Most of what Simon describes is deliberation only in Dewey’s narrow sense, which is really not deliberation at all. In yet another observation that Dewey might have made, Lave notes ‘that arithmetic in the supermarket often serve . . . other-than arithmetic intentions and purposes’ (1988: 121). These include: (1) ‘inventory,’ or ‘how much may be bought at one time without waste or spoilage’ (1988: 120), (2) ‘storage capacity,’ or ‘as the shopper considers the sizes of five and ten pound packages relative to shelf height and space available in her kitchen’,13 (3) ‘shoppers care about the taste, nutritional value, dietary implications and aesthetics of particular groceries’ (1988: 154). To this list of often-incommensurable values, we would add that perhaps they have moral concerns about consuming certain kind of products or perhaps they boycott certain fruits,
and vegetables to support workers unions, or aesthetic preferences regarding appearance. In such wide and comprehensive deliberation among competing values, the self is in the making as the economic agent strives to functionally coordinate their transactions with the aisles, displays, and employees of the supermarket, while striving to unify incommensurable values. This context of activities yields the real make-up, meaning, and value of economic activity. Having algorithms, machine programs, or a hand held calculator may help, but it is not the hub of human economic choice and deliberation. That involves embodied habits, action, passion, imagination, and creative transformation. One who knows how to calculate the price of everything, but cannot functionally coordinate incommensurable values makes poor choices in the supermarket. Economic theories that can only calculate cannot comprehend economic deliberation; hence, they make poor predictors of economic decision in the marketplace.

Lave observes that in the practice of grocery shopping, ‘problem solving is viewed as the resolution of dilemmas through gap-closing activity ... which seamlessly joins means and ends’ (1988: 167). Grocery shopping involves a nonteleological intentionality in which what is means and what ends emerges in the effort of the agent to functionally coordinate their transactions while resolving the problems posed by value incommensurability to their satisfaction. Dewey is entirely committed to the kind of nonteleological intentionality needed to go grocery shopping satisfactorily.  

8 CONCLUDING REMARKS

In this paper, we provided an alternative to deliberation conceived as utility maximization of any kind, including Simon’s bounded rationality and his notion of satisficing. We believe any theory such as Dewey’s that can deal with deliberation regarding incommensurable values better explains economic behavior in the everyday marketplace. We adduced empirical evidence to back our claim. We argue that not only Simon’s Turing machine psychology, but that psychology as usually understood, is nearly useless to economics. In particular, we want to refute the kind of cognitive psychology employed by Simon. We assert that economists would do better to concentrate on social practices in specific contexts and the neurophysiological basis of need and desire. Since the primary difference between Dewey or Aristotle from Simon, Hume, the utilitarians, or Plato is over whether or not deliberation deliberates about ends or not, we conclude this paper with a discussion of the nature of the aims of deliberation, including economic deliberation.

We have shown that both substantive and procedural rationality share the same basic utilitarian assumption: the teleological intentionality. The fundamental error of utilitarianism in all its forms, including Simon’s,
it assumes all alternatives, all objects of desire, all values are qualitatively the same. To assert that all values are commensurable and arrangable in a fixed hierarchy is, according to Dewey, ‘equivalent to the assertion that no real or significant conflict among them is possible; and hence there is no need of discovering an object an activity which will bring them into unity’ (1983: 149). That is the same as saying, ‘there is no genuine doubt or suspense . . . The only ‘problem’ or doubt is as to the amount of pleasure (or pain) that is involved’ (1983: 150). In the classical hedonistic calculus, agents strive to find the utility function that maximizes pleasure while minimizing pain. In such circumstance, there is no genuine deliberation, and, indeed, it is possible to write a utility maximizing equation that relates quantities of the same value and establishes a fixed hierarchy because the quantities are well-ordered. The mistake lies in confusing the subsequent calculation with genuine deliberation. At best, it is deliberation in the narrow sense; what makes it narrow is that it one-dimensional and it is one-dimensional because it only considers one value. The agent’s activity is already functionally coordinated, or all that is required for such coordination is more (or sometimes less) of some one thing.

One of Dewey’s concerns about philosophical abstractions in all its forms is that it attempts to decontextualize knowledge. Similar concerns apply to Simon’s attempt to use a decontextualized theory of mind as a Turing machine to also argue that it is possible to detach values from their social context. It is here Dewey delivers his most damaging blow to expected utility theory and to Simon’s attempt to rescue it via a psychology of Turing machine procedural rationality. Dewey observes:

The uses to which gains [maximizations] will be put . . . are passed over only because they are so inevitably present. Support of family, of church, philanthropic benefactions, political influence, automobiling, command of luxuries, freedom of movement, respect from others, are in general terms some of the obvious activities into which economic activity fits. This context of activities enters into the real make-up and meaning of economic activity.

(1983: 153)

Simon’s psychology, like all psychologies that think there is a special psychic realm somewhere between neurophysiology and sociocultural practice and theory, ignores context. In this case, Simon ignores the larger context of social and cultural activities, along with their meanings and values, which gives economic activity its meaning and value in the wider sense.

The problematic situation involves the conflict of incommensurable meanings and values among these diverse domains of activities. In the agent’s efforts to functionally coordinate their transactions it is impossible to establish a single, narrow, hierarchy of values without cutting them off
from all other values. The agent’s task is not determining such a hie-
archy, but, insofar as possible, arriving at a dynamic equilibrium among
a wide variety of values that allows the agent to satisfy their need and
desire to maintain unified functioning. Dewey draws the obvious conclu-
sion: ‘Calculated pursuit of gain is in fact never what it is made out to be
when economic action is separated from the rest of life, for in fact it is
what it is because of a complex social environment involving scientific,
legal, political and domestic conditions’ (Ibid.). Economic agents, as an
empirical fact, cannot separate economic values from other social values.

Simon’s computer metaphor of mind cannot handle the fact that it is a
moral and aesthetic as well as cognitive being that chooses, or that these
aspects of one’s being influence the choices made and the conditions of
satisfaction. Satisfaction is also conditioned by embodied action upon the
world. The conclusion is obvious, though difficult to accept. Satisfaction
is not confined to the mind, or even the body, it is a matter of the agent’s
transformative transactions with the world. What satisfies the agent must
satisfy the entire disharmonious situation of which the agent is only a
subfunction.

Because both the agent and the world undergo transformation simulta-
neously in the process of deliberation for Dewey, what satisfies the agent
at the end of deliberation need not be what would have satisfied at the
beginning. Satisfaction is an emergent product of deliberation. Similarly,
the hierarchy of satisfaction at the end of the process of deliberation is
often not the one with which we began. Indeed, hierarchies of value mean
much less for Dewey than for Simon, who could not do without them in
his theory of satisficing. Said differently, Simon has a teleologically fixed
theory of satisficing, while Dewey has a flexible nonteleological theory of
satisfaction. One cannot reconcile conflict concerning incommensurable
values by utility calculation involving reduction to one supreme value
because that simply proves there was no real value conflict to begin with.
Ignoring the social context of incommensurable values crucial to genuine
economic deliberation is, we believe, the most serious cause for the
construction of models of economic choice of little predictive merit in the
marketplace.

Simon’s psychology of economic rationality not only assumes a socially
decontextualized mind whose primary function is to carry out Turing
machine calculations, he also assumes a mind that is decontextualized
from the material conditions of the environment involved in the agent’s
habits and impulses that give substance to economic need and desire.
Interestingly enough, Dewey defends utilitarianism against those who
would emphasize embodied factors alone as determiners of action. He
concedes that unconscious ‘impulse and habit, not thought, are the
primary determinants of conduct’ (Ibid.), but that is precisely why he
thinks we need a theory of conscious, intelligent deliberation. Dewey
writes, ‘The error of utilitarianism is not at this point. It is found in its wrong conception of what thought, deliberation, is and does’ (Ibid.). We think Dewey is right regarding utility theory in general and Simon in particular.

Dewey’s instrumentalism is as different from the Humian inspired instrumentalism of Simon, and the utilitarians, as is possible. For Dewey, ‘ends arise and function within action. They are not ... things lying beyond activity at which the latter is directed’ (1983: 154). There are no ends of action for any living creature; there are only ends of deliberation. For Dewey, ends as ‘ends of deliberation ... are redirecting pivots in action’ (1983: 155). There are no absolute teloi, ends, or values for Dewey below, which all other values exist in a fixed and final hierarchy. Dewey also draws a very important distinction between ‘ends-in-view’ and ‘ends’. End-in-view are imaginative possibilities that serve as guides to action, but in a strict sense ‘an end-in-view is a means in present action; present action is not a means to a remote end’ (1983: 156). Blueprints are means to the end of constructing a building. An end per se is simply what we get at the end of deliberation, whether it is what we want or not; it is an existential state of affairs. If we get what we want, it is the final, emergent telos of deliberation; it is not the end of action. Ends-in-view are constantly adjustable and usually evolve as the inquiry unfolds. Further, the existential end actually achieved is rarely entirely that which we intended at the beginning of deliberation. This is one way that meaning may emerge out of inquiry and not just initiate and infuse it.

Dewey, contra Hume, denies that ends are ever entirely separable from means. Unlike modern champions of instrumentalism, means often constitute the end for Aristotle and Dewey, just as bricks, artisanship, and mortar constitute the building upon completion. The experienced builder may tell what kinds of tools workers used on the job and can surely evaluate the quality of the artist who executed the work as well as the architect’s design. Dewey described the organic relations thus: ‘The connection of means-consequences is never one of bare succession in time ... There is a deposit at each stage and point entering cumulatively and constitutively into the outcome. A genuine instrumentality for is always an organ of an end’ (1981: 276). Connecting means with ends is not a linear exercise; Dewey insists on ‘the thoroughly reciprocal character of means and end in practical judgment’ (1979: 37). What is means and what ends emerges in the creative effort to co-ordinate some situation, some context of action much as what is stimulus and what response emerge in any living organisms effort to constitute a stimulus that controls subsequent action. At any point in the process of functionally coordinating means and consequences, we might decide that what we have thus far accomplished is more valuable than our original end-in-view and decide to simply stop satisfied. Such a
choice is easier for those whose non-teleological intentions allow them to play with possibilities, rather than work toward predetermined, fixed, and final goals.

What is means and what are ends in a functionally coordinated situation depends on the purposes of the agent; they are not distinctions of existence. The end, the situation, is whatever it is; another agent might strive to arrange the same unity, but find the end in another aspect. As Dewey describes it: ‘The doctrine of fixed ends not only diverts attention from examination of consequences and the intelligent creation of purpose, but, since means and ends are two ways of regarding the same actuality, it also renders men careless in their inspection of existing conditions’ (1983: 160). The unity of means and ends in the existential end actually achieved is why there are always unintended consequences to every action and every end of deliberation.

In sum, Dewey has a nonteleological theory of intentionality in which the ultimate end is always to restore functional coordination to the agent’s transactions, including, of course, economic transactions. Such unity is the true source of satisfaction in life, including our economic lives. Our critique of the prominent economic theory of choice and its main alternative, bounded rationality framework, resonates well with James Buchanan’s view; consider:

In economics . . . the ‘efficiency’ that such market arrangements produce is independently conceptualized. Market arrangements then become ‘means,’ which may or may not be relatively best. Until and unless this teleological element is fully exorcised from basic economic theory, economists are likely to remain confused and their discourse confusing. (1999: 245)

Nonteleological intentionality, functional coordination, and satisfaction are among the constitutive properties of Dewey’s theory of deliberation, a theory which has the ability to account for rational choice in the context of value incommensurability such as we typically encounter in the market place.

Shabnam Mousavi
Jim Garrison
Virginia Polytechnic Institute and State University
smousavi@vt.edu/wesley@vt.edu

NOTES

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Deweyan pragmatism is consequentialist, but not in this utilitarian sense. For one thing, Dewey acknowledges consummatory and immediate aesthetic experience as an end in itself.

‘For [Simon] the concept of perfect rationality combines two different assumptions: (1) a teleological assumption . . . (2) a cognitive assumption . . . Simon advocates the following two assertions: (1) the teleological assumption is true, but (2) the cognitive assumption is false’ Fredric Laville (2000).

In the book that serves for many as an official history of the movement. Howard Gardner remarks that Herbert Simon was ‘one of the founders of cognitive science’. See H. Gardner’s *The Mind’s New Science* (1985).

In *Logic: The Theory of Inquiry*, Dewey writes, ‘The distinction of organism and environment is a practical and temporal one, arising out of the state of tension in which the organism at a given time, in a given phase of life-activity, is set over against the environment as it then and there exists. There is, of course, a natural world that exists independently of the organism, but this world is environment only as it enters directly and indirectly into life functions’ (1986: 40).

Of human organisms it is especially true that activities carried on for satisfying needs so change the environment that new needs arise which demand still further change in the activities of the organisms by which they are satisfied; and so on in a potentially endless chain (see Dewey 1986: 35).

Dewey reconstructs the interactive reflex arc concept or information input and output concept, into an organic circle of functional coordination of the agent’s transactions: Dewey concludes: ‘It is the co-ordination which unifies that which the reflex arc concept gives us only functional phases’. Dewey further states: ‘What we have is a circuit, not an arc or broken segment of a circle. This circuit is more truly termed organic than reflex, because the motor response determines the stimulus, just as truly as sensory stimulus determines movement. Indeed, the movement is only for the sake of determining the stimulus, of fixing what kind of a stimulus it is, of interpreting it’. The motor response (or, more likely, series of responses) “constitutes” the stimulus that redirects and guides activity. What is crucial is that what is the stimulus and what is the response emerges in the transaction; neither is given. Similar remarks hold for information input and output.

For a thorough study on the Humean basis of twentieth century economics, look at ‘Hume and the Economists’, Ch. 2 in Philosophy of Economics, Subroto Roy (1989).

Elsewhere, Dewey notes: ‘No “reasoning” as reasoning, that is, as excluding imagination and sense, can reach truth . . . [the inquirer] selects and puts aside as his imaginative sentiments move. “Reason” at its height cannot attain complete grasp and a self-contained assurance. It must fall back upon imagination – upon the embodiment of ideas in emotionally charged sense’ (Dewey 1987: 40).

In Dewey’s theory of creative action, ‘rationality’ itself is among those things we create and must constantly revise. ‘Reason’, Dewey writes, ‘is
not an antecedent force which serves as a panacea. It is a laborious achievement of habit needing to be continually word over.’ Dewey, Human Nature and Conduct, (p. 137; see also pp. 136 and 137).


13 Interestingly, Lave found ‘no significant statistical relationship between the gender of participants and any other variable in her grocery shopping studies’ (1988: 51).

14 On these occasions when an agent is capable of establishing a fixed hierarchy, or all values are commensurable, then, of course, Dewey would consider straightforward utility calculation, but then deliberation is, as we have seen, not necessary according to Dewey.

REFERENCES


