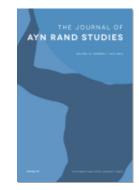


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Preference Formation, Choice Sets, and the Creative Destruction of Preferences

RUSSELL S. SOBEL AND J. R. CLARK

ABSTRACT: Economic models are founded in the idea of taking individuals' preferences as both *known* and *given*. This article explores the evolution of personal preferences, within a context of both entrepreneurial discovery and Objectivist philosophy. It begins by formalizing Ayn Rand's theory of Objectivism applied to human values, and continues by modeling preference changes similar to Schumpeter's theory of creative destruction—a process of self-discovery. Next the role of societal factors is examined in forming shared preference sets. Finally, the article describes how the strength of human preferences is used to narrow choice sets in the presence of greater consumption options.

I. Introduction

Economic models of human decision making—maximizing utility subject to the constraints imposed by scarcity—are founded in the idea of taking each person's preferences (which appear in the person's utility function) as both *known* to the individual and *given*. Under the assumptions of known and given preferences, economic models derive the conditions for best satisfying those

The Journal of Ayn Rand Studies, Vol. 14, No. 1, 2014 Copyright © 2014 The Pennsylvania State University, University Park, PA preferences—that is, maximizing utility or happiness—subject to a constraint such as limited income, resources, or time. Economists are also content with the idea that preferences and values are subjective, in the sense that some people may enjoy the consumption of a particular good or service, while others do not, and do not tend to pass moral judgment on which things are (and are not) included in a person's preference set.

Ayn Rand's 1957 novel *Atlas Shrugged* is familiar reading for many of today's market-oriented economists and has been used to teach economic principles.¹ Over the past decade, in part because of the philanthropic giving of the BB&T Charitable Foundation, an increased level of academic interaction between economists and Objectivist philosophers has been occurring, particularly at annual conferences hosted by the Clemson Institute for the Study of Capitalism, and joint sessions with economists and representatives of the Ayn Rand Institute at the annual meetings of the Association for Private Enterprise Education.

While the two groups share many common recommendations for economic policy, the result of these discussions has uncovered several areas of apparent disagreement, or more precisely areas where economists simply have a hard time fitting some of the Objectivist arguments into their models, and vice versa.² Of particular interest here are the differing definitions of "self-interest," whether people do indeed "always act in their own self-interest," and whether values/ preferences are subjective or objective. This article attempts to promote greater understanding by economists of Objectivism and how it may be viewed within economic models, and greater understanding by Objectivists of economics. By bringing a time dimension into the analysis of utility functions, and utilizing ideas from the literature on entrepreneurial discovery within the field of Austrian economics, it becomes much easier for both sides to see common ground and make progress toward a joint understanding of the similarities and differences in the approaches taken by these two groups. Specifically, this article explores the idea of the evolution of personal preferences, or values, within the context of both Objectivist philosophy and entrepreneurial discovery.

II. Is Morality Missing from Economic Models? What Can Philosophy Add?

Philosophers approach and discuss human preferences—the things people value—much differently than do economists. Philosophically, human values and the choices that flow from them can be considered to be morally good (saving a drowning child), morally bad (rape), or morally neutral (perhaps buying a shirt). A preference for raping women, for example, might appear in an abnormal male's utility function, and an economist could easily see how this

man would face trade-offs, relative prices, and constraints in making choices on whom, how, and when to commit the act of rape. Economists are comfortable assuming this decision is just as subject to modeling as a preference for buying a shirt, or giving to charity. Resources will be allocated so that the marginal contribution to the person's utility function, per unit of resource spent, is equalized across all things that the person values or for which the person has a preference, even if such actions are criminal or morally bad. This approach has been widely applied in the literature on the economics of crime (see, e.g., Becker and Landes 1974).

This gives rise to the normal caveat in economics that the economic definition of "rational choice" differs from the standard usage of the term in society. While a "rational choice" may socially or casually mean a "good choice," to an economist it simply means a choice made by clearly weighing the economic costs and benefits of the proposed action, and doing it only if the benefits exceed the costs.

The economists' shunning of the moral view of preferences helps to explain why economists who are in favor of legalizing drugs or prostitution, who try to justify high gas prices or profit rates of corporations, who want to repeal the minimum wage, or who claim the benefits of "price gouging" after hurricanes, often face obstacles in convincing others to accept the policy conclusions that flow from even the most basic and straightforward economic analysis. To others, the hidden moral considerations about preferences also carry weight in the decision of which belief to accept—including the preference for self-interested profit-seeking action as a basis for human action (see Clark and Lee 2011).

As Clark and Lee (2011) argue, economists often shy away from addressing the moral side of the equation, which is one reason it is difficult to win many economic debates on controversial issues such as these with the general public. Economists attempt to be scientists, to use only "positive," scientific analysis in their models. Only measurable, empirically testable hypothesis are considered. To economists, which actions are morally superior to others is not a subject of scientific debate, but a matter of "to each his own." Not only are the values of items subjective, but so are the choices of which items to value or put in the utility function.

Many economists would stop at the point of legitimizing coercion against others, however, regardless of the cost-benefit analysis that might show a net benefit from coercion in a specific case. While coercive taxation (e.g., the income tax), regulation (e.g., employment, environmental, or price regulation), and property seizure (e.g., eminent domain) are generally accepted or at least justifiably efficient in mainstream neoclassical economic models, there are some areas where many economists clearly draw a line. Nonetheless, even within the market-oriented public choice literature, especially the "social-contractarian" approach, the idea of a coercive club or government is embraced as long as there is a scope of coercion unanimously agreed upon in advance. For example, according to Buchanan (1990, 12), "The contractarian logic leaves open any specification of the range and scope for agreed-on coercive authority."

Those economists who in addition to their economic training also have underlying libertarian, classical liberal, natural rights, or religious belief systems, as well as a few others, tend to draw the line more clearly, holding that all nonvoluntary exchange is improper, regardless of whether it meets a cost-benefit test in an economic model. Disagreeing with other economists who rely mostly on the efficiency or cost-benefit test, these "principled" economists often simply argue that putting rights up for grabs leads to a reduction in total social output or welfare because it draws resources into both taking (predation, plunder, rent seeking, or lobbying) and into protecting against invasion (see, e.g., Tullock 1967). Another reason some draw the line at voluntary exchange is to avoid interpersonal utility comparisons in which the losses to one person must be measured against the gains to another without a proper common metric for the subjective concept of utility.

III. A Positive Approach to Preferences? Ayn Rand's Objectivism

Philosopher Ayn Rand, whose 1957 novel *Atlas Shrugged* is a favorite among many market-oriented economists, understood basic economic principles, as is clearly illustrated in her work. Her philosophy, termed "Objectivism," argues a position that is founded in a belief about science, positive analysis, and testable implications. To Rand, the set of things that people *choose* to value, that is, choose to put positive weights on in their utility function, matters for human flourishing and happiness. Rand believed that if certain things appear in your utility function (you choose to value them) then you will be happier. Which things tend to make a person happier if they appear in a utility function is a not random occurrence or a purely subjective phenomenon "in the eye of the beholder."

We all have in common the simple fact that we are indeed human. Certain things are entailed as a result of being human: if hard work, producing value, living by principles, clear thinking about one's long-term self-interest, and examining and weighing scientific facts and real-world sensory observations appear in your preference set (or utility function), you will be a happier person and live a more fulfilled life.

At first glance, this idea is troubling to many neoclassical economists who share the idea that individuals always know what is best for themselves and always act to maximize their utility or happiness.³ However, this economic

approach that appears to be at odds with Rand's ideas is a mathematical optimization at a given point in time, assuming known and constant preferences. By expanding the economic model to include a time dimension, we may begin to rectify these two apparently contradictory ideas. Before introducing the time dimension within which preferences can and do change, it is worthwhile to simply attempt to translate Rand's assertion into a standard economic model of utility maximization at a given point in time.

Assume U_i is the total utility or happiness of person i, and the set of goods or actions in person i's utility function includes goods A, C, and Z, among many other goods. Assume further that A is the quantity of apples consumed by person i and C is the quantity of cocaine he or she consumes. The parameters β_A and β_C are the weights or contributions to person *i*'s utility from consuming units of these goods.

$$U_{i} = f(\beta_{A} * A, ..., \beta_{C} * C, ..., \beta_{Z} * Z)$$
 (1)

Now, assume that currently person i places positive weight on cocaine, that is, $\beta_c > 0$, but does not have a preference for apples (or even has a negative preference), so that $\beta_{\scriptscriptstyle A} \leq o.4$ Let us call the total utility or happiness the person could generate for himself or herself with these preferences and weights, when it is maximized subject to the constraints, U_i^C .

Rand's view would be that some goods or values, such as eating apples, may be (or may not be) superior to other goods or values *objectively*, meaning for all (or practically all) human beings. Continuing, assume that the same person goes to a rehabilitation center, stops enjoying cocaine, and starts enjoying apples instead. Therefore, the weights now change so that $\beta_C \le 0$ and $\beta_A > 0$. Now, call the total utility or happiness the person could generate for himself or herself with these new preferences and weights, maximized subject to the constraints, U_i^A .

Put simply, Rand would argue that for certain actions, values, or preferences, $U_i^A > U_i^C$ for most if not all human beings. Therefore, her Objectivist approach to value can be viewed by an economist as a positive statement regarding whether weighting certain things (or not weighting) them in a person's utility function will impact his or her ability to generate a higher utility with a given budget, income, or time constraint. The claim is being made that, with the same resources, people can produce more total happiness or utility if they choose to put preference weights on some things but not others in their utility functions. Interestingly, this approach could also be used to describe the claims made by religions as to how following their particular set of beliefs and their set of values leads to a happier life. For now, however, we stick to attempting to understand the Objectivist claims within this model.

While economists and Objectivist philosophers may debate whether some uniform and common set of items would indeed produce the highest happiness for all human being, simply as because we are human, the key to moving forward in this debate is for economists to understand that it clearly is possible, even within current economic models, to see that replacing one argument in a utility function with another may indeed allow a person to generate more happiness with a given set of resources and constraints. With this expanded understanding, the economist may begin to see how an Objectivist may claim that a person is not maximizing self-interest or happiness, when this is meant to include a higher possible total level of utility that could be produced with a different set of preferences. Whether the set of preferences that would allow individuals to produce the most utility is correlated across individuals is at the heart of the Objectivist idea that values are objective, not subjective. An important side note, however, is that even within Objectivism, the view that people are not making the choices that would make them best off does not logically imply a role for government or for the use of force or coercion to change the choices of these individuals. The Objectivist stand against the initiation of force against others precludes interfering in others' choices, even if they are not the choices we would view as being in their best interest.5

From a personal standpoint, we all know that through time our preferences change, switching perhaps from hot dogs to caviar, from rock to classical music, or from one restaurant or hobby to another. We realize that some of these changes have made us able to produce more total happiness than we could have attained with our past set of preferences. The question simply becomes whether there are true, significant, and widespread correlations across individuals as to which things produce more total utility. Secondarily, we should ask how, why, and by what process the weights, preferences, or values of individuals change through time, and perhaps more important, how they change in the "right" direction through time. Another obstacle, for a mainstream economist who insists on a "positive" scientific approach, is objectively measuring human happiness, especially in a manner that allows meaningful comparisons either through time for the same individual or across individuals.

IV. The Evolution of Preference: An Austrian Entrepreneurial Approach

Within the Austrian school of economics, there is a robust literature on entrepreneurial discovery. In this section of the article, we attempt to employ some of the ideas from that literature to the process by which individual preferences change through time. Joseph Schumpeter ([1911] 1934; 1942) stressed the role of the entrepreneur as an innovator who finds new combinations of resources

and creates products that did not previously exist. From a Schumpeterian view, the entrepreneur is a disruptive force in an economy because the introduction of these new goods and services leads to the obsolescence of others. The introduction of the compact disc, and the corresponding relative disappearance of the vinyl record (and the current trend toward disappearance of the compact disc in favor of digital downloads), is just one of many examples of this process Schumpeter termed "creative destruction." Israel Kirzner (1973; 1997) views entrepreneurship as a process in which entrepreneurs discover previously unnoticed profit opportunities and act on them.

Throughout life, a person's preferences change in a manner rather like Schumpeter's creative destruction, or the entrepreneurial trial and error process of discovery stressed by Kirzner. But here we are discussing a process of self-discovery. We try new things, sometimes because a friend tells us or because we see an advertisement. Sometimes these are things that we didn't ever include in our utility functions before, but after experimenting we begin to like them and put them into our preference sets moving forward. Other times, we try things we don't like and do not include them moving forward, or for various reasons stop liking things we used to like before. This process of experimentation resulting in preference sets being updated (or not) is similar to the process performed by the profit and loss system that applies to new entrepreneurial ventures. Newly discovered items that we do adopt as part of our preference sets moving forward may be viewed as being profitable in terms of increasing total utility generated from a given set of life resource constraints. The things we try and don't include moving forward (or stop liking) have similarly become unprofitable in terms of their ability to generate happiness. The profit and loss feedback to which entrepreneurial discoveries in the marketplace are subjected determines which survive and which do not. The feedback from our level of happiness or utility from experimentation with new goods and services or patterns of behavior is the equivalent profit and loss system that determines which things move into (and out of) our utility functions.

One powerful negative feedback mechanism within humans is the feeling of "guilt" or "regret." Individuals may undertake an action, such as stealing money, shoplifting, or cheating on their spouse, not get caught, and suffer no external negative consequences. At the time they committed the action, from an economic standpoint, it must have appeared to them to be an "economically rational" choice in that they perceived the expected benefits outweighed the expected costs. But even though they did not get caught and suffer what were the apparent costs, they may in future days begin to feel guilty about their behavior and regret their actions even if they are the only one who knows it occurred. These negative feelings of guilt (and the opposite-pride for good behavior) also function as a profit and loss signal to individuals in the course of preference evolution. Importantly, people may not know in advance that they will suffer from these feelings (or enjoy them, in the case of pride) about their actions moving forward. Indeed individuals must discover how they feel about their actions. Again, viewed within a framework of Austrian theories of entrepreneurship, this is a trial and error process, and frequently the outcomes in terms of profit and loss or, here, happiness or dissatisfaction are not, and cannot be, always known in advance (see Hayek [1968] 2002).⁷

We now attempt to formalize these concepts within the utility maximization model by adding a time dimension. The processes of both entrepreneurial discovery and preference evolution have in common that they are dynamic and occur only within the dimension of time. The set of consumer goods that exist at time t+N in the marketplace will differ from the set of goods at time t, and similarly the set of goods or actions that exist in person i's utility function at time t+N will differ from the set at time t. Therefore, the weights in the utility function can be thought of as being time-dependent, in the same way economists approach other time-dependent variables. That is, the weight on a preference, β_A , should more properly be thought of as β_A , where

$$\beta_{A_t} = f(\beta_{A_{t-1}}) \tag{2}$$

A simple, familiar, and econometrically tractable version of this would be

$$\beta_{A_t} = \alpha_t + \delta^* \beta_{A_{t-1}} + \varepsilon_t \tag{3}$$

Those with knowledge of time-series econometrics will immediately see the potential for applying basic theories of stationarity and nonstationarity, concepts of a random walk, and the concept of mean reversion to preference evolution within this framework. For example, if $\alpha_t = 0$ and $\delta = 1$, then generally the preferences of an individual will follow a random walk through time where preferences at time t are simply the same as preferences at time t-1 plus or minus a random shock or error component:

$$\beta_{A_t} = \beta_{A_{t-1}} + \varepsilon_t \tag{4}$$

While economists normally take constraints as given and maximize utility subject to given preferences and constraints, here making the β parameters endogenous enables us to ask how to maximize utility, U, by changing the β weights with a given budget constraint. An obvious example is if one quits liking filet mignon, FM (so say $\beta_{\rm FM}$ goes from $\beta_{\rm FM}=3$ to $\beta_{\rm FM}=0$), while replacing this with a preference for hot dogs, HD (so say $\beta_{\rm HD}$ goes from $\beta_{\rm HD}=0$ to $\beta_{\rm HD}=3$), it would be easy to produce higher total utility simply because hot dogs are less expensive.

Whether the process of preference evolution is subject to conscious choice or is mostly influenced by exogenous events deserves explicit discussion. Unhealthy eaters often have trouble turning off their preference for candy, and for many it takes effort to learn to enjoy time spent exercising. There is indeed a literature on "rational addiction" that models time-dependent preferences for goods where the enjoyment rises with consumption through time through the buildup of a stock of addictive capital (see, for example, Becker and Murphy 1988). Advertising and information may also be viewed as factors that help to shape and change our preferences. However, it is the trial and error process of actually experimenting with the consumption of goods and services, or undertaking certain behaviors, that provides us with the internal feedback that enables us to see whether we do indeed like the recently discovered item enough to update our preference set.

Friends—importantly those individuals with whom we have self-selected into spending time with because we share common preferences on some or many things—are often the source of changes in preference weightings through time. If a friend who shares similar likings for X and Y also likes Z, which you have never tried, it may very well be that trying Z for the first time and eventually putting it in your utility function may result in more total happiness for you as well. As humans we experiment, and experimenting is costly. Thus, there is an optimal level: individuals will experiment only up to the point where the expected marginal benefit equals the expected marginal cost. Experimentation unavoidably involves uncertainty and risk, and can clearly result in bad outcomes. If you are talked into trying a new type of food item by a friend but end up not liking it, and it's the entire main course for dinner, you are worse off for experimenting. Logically one would assume that experimentation would have a lower expected cost or be less likely to lead to worse outcomes when it is suggested by a friend, or someone who has preferences closer to one's own on many other goods or behaviors and actions, or someone one views as having expertise in a particular area.

Preferences are both socially dependent and shared. A cultural group, hobby club, or religious organization, for example, is often described as being a shared set of preferences. Our friend groups are determined partially by which items or actions for which we choose to have (or find ourselves exogenously having) shared preferences. If one chooses to value tattoos or piercings, the friend group within which one would be accepted would differ from the corresponding friend group if one chooses to value weight lifting and jogging. To be accepted in a certain social group, for friendship or mating objectives, we often adapt our preferences to be more similar to others in the group to which we wish to belong (see, for example, Castronova 2004).8 There is indeed a literature on "cultural economics" that explores how social influences shape human preferences (see, for example, Bowles 1998).

Mate selection is often a problem of identifying a partner with whom we share common preferences or values. Given the wide range of possible things to value, we try to pick the person who in essence minimizes the sum of the squared differences in preference weights (our β terms versus theirs) across all components in the utility function. Preference weights and the things we value evolve in ways that both seek to gain acceptance in social circles and determine which social circles to which we belong. Growing up in a society that values face painting, tribal dances, and odd food choices, one would obviously develop preferences for these actions to maximize the chances of one's genes being propagated through natural selection.9

Within the context of an economic model, these cultural and societal factors may be viewed as some of the determinants of the α_t terms in equation (3). But in summary, preferences in general are time-dependent, meaning $\delta > 0$ in the context of equation (3). The economics literature on rational addiction cited earlier provides an example of time-dependent preferences. One may try cocaine, and begin generating a stronger preference for it through time $\beta_C > \beta_{C_{t-1}}$. At any given point in time the person is maximizing his or her utility given the preference weights that exist in that period, which for an economist means the person is acting in his or her own self-interest. However, this does not necessarily mean maximizing the total utility generated by the individual—if U_{i_t} falls over time so that $U_{i_t} < U_{i_{t-1}}$. In other words, as preferences evolve and change a person can produce more or less total utility with a given set of inputs.

If economists are willing to accept that a higher level of utility can be reached by changing one's preferences, then combine this with the idea (characteristic of Objectivism) that a common, discoverable set of values are what produces this highest possible utility, they can translate the Objectivist notion that "people are not acting in their own rational self-interest" into "they currently have a preference weighting that is *not* the one that produces the highest possible level of utility or happiness."

Whether this process of experimentation and preference self-discovery leads us through time to learn what our real preferences are—in the sense that our true preferences were really there underneath and just not uncovered yet—and whether this set of preferences on which we converge is a "good" or "bad" or even common set of preferences for human flourishing and happiness are the keys to furthering the discussion among economists and philosophers on this issue. Objectivists would argue that all (or most) human beings will or should converge to the same kinds of items with the same kind of weights. This does not mean all of us will like apples, at that precise of a level, but that, for example, by being trustworthy we can all generate higher levels of self-esteem.

V. A Neoclassical, "Chicago-Style" Critique

Many readers may be familiar with the popular joke about two economists walking down the road. One says "there's a twenty-dollar bill laying on the ground" and the other replies "there can't be, if there was, someone would have already picked it up." This type of thinking is embodied in standard neoclassical models in which all profit opportunities have already been acted upon and all markets are in zero-profit equilibria. It is even exemplified by Donald Wittman's (1989) critiques of public choice economics, to the effect that democracies produce efficient results, because if there were gains from moving to a new or different, and better, institutional environment, we would have already done it; therefore the existing institutions and policies must, by definition, be the best among the known alternatives given the expected costs of switching. Such arguments presume that as long as opportunities for gain are known, they will instantly be acted upon, and in models that assume perfect information and foresight this is a straightforward implication of the logic.

Should one try to apply such arguments to the issues discussed so far, a much different conclusion would be reached. For example, if individuals experiment with new goods or values to the point where all experimentation with higher expected benefit than expected cost has been undertaken, by definition they are already maximizing their utility among the set of goods to choose from, because while there may be something better out there, the cost of finding it exceeds the benefits. Similarly, if a different weighting of items in a person's utility function, or a different set of items appearing within the function, would produce a higher level of utility, then the individual would already have made these changes to his or her utility function to secure these gains.

Similarly, if individuals maximize their present discounted lifetime utility by choosing the beta (β) weights in equation (1) and items in the utility function (A, C, Z in equation (1)) optimally at each point in time, with perfect knowledge of the alternatives and consequences that would result, by definition they must be maximizing their long-run self-interest. If indeed a given or common set of values, as the Objectivists suggest, maximizes human happiness, then all humans will already have discovered this, acted upon it, and adopted this set of "optimal" values and preferences. According to this line of reasoning, if we haven't all adopted this common ideal set, it must be because there is not one objective set that indeed does maximize human flourishing and happiness. The fact that the current outcomes, values, preferences, and choices for "economically rational" humans have not converged on some Objectivist set of values is enough, for someone following this logic, to conclude such values simply don't exist. For if they did, we would have already discovered and adopted them.

It is not our intention to argue whether this chain of logic is right or wrong, but simply to point out that it exists, and stands in the way of some economists comprehending the Objectivist's arguments that individuals have to choose to be rational and choose to maximize their long-run self-interest, and that some human beings do not do either. Central to understanding and moving this discussion forward are the concepts of evasion and knowledge.

To an Objectivist, one of the things practiced by "nonrational" humans is evasion—that is, the process of evading and denying facts, believing things are one way when they are actually another and denying any evidence to the contrary. Standard economic models have no room for such irrational behavior, because if individuals engage in evasion they are making themselves worse off which in the economic models no human would choose to do. An economist would simply question why anyone would ever make decisions based on wrong facts and ideas when adopting the correct ones would lead to better decisions that would result in more happiness. Despite the economic logic, even economists realize that after we teach students about why minimum wages harm the very people they are intended to help, or teach them the benefits of free trade, some students simply choose to ignore the economic logic and the econometric evidence and hold onto the same beliefs they held prior to learning these economic arguments. This would seem to fly in the face of the assumptions economists would generally make about human updating of information. Even if one assumes some type of Bayesian updating process, in which the students place enormous weight on their priors, it would further require they give almost no credence to the new information they are learning in their economics classes. If, in fact, people choose to evade facts, and evidence, choosing to believe, for instance, that A causes B when it does not, then it is clearly possible for individuals not to be maximizing their own personal, rational self-interest precisely because they are not being rational in terms of weighting the best estimates of the true costs and benefits of their choices, actions, and beliefs.

The ideas put forward by Bryan Caplan in his book *The Myth of the Rational Voter* (2007b) may help to rectify these two ideas. In that book, Caplan argues that individuals hold "wrong" beliefs about the impacts of policies like free trade, or minimum wages, precisely because there is no personal cost (or a very low one) associated with holding the wrong belief. If someone holds the wrong belief about gravity, there are high personal costs in terms of subsequent injury to his or her body. Because of these high personal costs, such a wrong belief will be corrected rapidly, and the person will not hold on to it for long. On the other hand, holding a "wrong" belief about the impact of the minimum wage does not have such consequences for a typical college student. In fact, if holding the "wrong" belief is popular in the social circles in which one interacts, holding the opposite belief could be personally costly, for example, by reducing friendships

or dating opportunities. Similarly, four hundred years ago holding the wrong belief that the Earth was indeed the center of the universe and that the Sun orbited the Earth (despite the arguments and evidence of Galileo, Copernicus, and others to the contrary) had little consequence for the average person, but the wrong belief was enormously valuable in promoting acceptance among the social groups at the time, such as the Catholic Church.

However, for the Caplan argument to apply to the topic at hand, it would have to be the case that evading the facts about the personal consequences of the things people choose to consume or value, or the true consequences of changes to their habits and values for their happiness, would also have a low personal cost. If the difference to a person's happiness from holding the right set of values versus the wrong set were minimal, Caplan's argument would apply. But, from an Objectivist standpoint, how could the difference be so small? If indeed the difference in happiness is large, then using Caplan's logic as to why people evade can't explain how evasion could be part of an "economically rational" human decision process. No economically rational individual would systematically ignore or evade information that would allow him or her to achieve a higher level of utility—unless somehow there was value in holding the wrong belief in and of itself, enough to justify the large reduction in utility from the incorrect decisions that would result.

Quite simply, the idea of individuals consciously choosing to evade knowledge that would make them substantially better off cannot be squared with economic models of human decision making in a way that would make sense of the Objectivist claim that individuals do not always maximize their rational self-interest. A potentially more productive chain of logic would be to question the existence of the knowledge in the first place. Economic models often assume perfect knowledge, and economists definitely would not accept the idea that knowledge of value would somehow not be incorporated into a human's decision-making calculus. The remaining possibility, therefore, is that the knowledge does not exist.

Economic models implicitly assume that individuals can foresee, or at least form unbiased expectations about, the consequences of their choices about consuming or valuing. But when this knowledge is lacking, suboptimal choice becomes explicable. For example, if one did not know that touching a fire would result in a burn, as one doesn't as a young child, one may be led to touch the flame and suffer the burn. Historically, humans did not have as much knowledge about the linkage between actions and consequences as is available today because of scientific advances and wider communication of the results. Beliefs that the gods caused eclipses, that rain dances worked, or that human sacrifice was a way of helping society or getting good crops, for example, held sway simply from a lack of knowledge about the true nature of the world. Similarly, knowledge was simply not available about proper dental care and dietary intake. When knowledge is lacking people may make choices that do not produce as many good results as would be the case if they had the knowledge—which does not imply that the decision was wrong or irrational at the time it was made, given what information the people had available, or expended the effort to acquire. Making decisions with incomplete information because of the cost of acquiring knowledge is an optimal, utility-maximizing strategy in the long run. In addition, when previously unknown knowledge does become available, individuals can update or change their decisions to account for this new information.

In the above examples, the information is exogenous to the actions of the individual: it pertains to cause and effect relationships that exist in nature. Such knowledge is different from the knowledge at issue in the discussion of preference and value evolution in a major way. Information and knowledge about the true happiness, benefit, or cost of behaviors or choices is within the mind of the individual alone, and in many cases, especially with regard to trying new things, the actual utility consequences simply cannot be known in advance—they can be discovered only as a result of undertaking the action. For example, if a person has never tried eating a banana, there is no way of knowing in advance if he or she will like the taste of a banana. The only path for acquiring this knowledge is through the actual trial. Therefore, by definition, in advance of experimenting individuals cannot possess the knowledge of the value of a banana to them. F. A. Hayek ([1968] 2002) made similar arguments about market prices, profitability, and other market outcomes—that they can be discovered only as the result of the competitive market process and cannot be known without this process actually occurring. It is the market process of competition, for example, that determines what the price of bananas will be, and whether growing them will be profitable, and there is no way of knowing in advance what the price of a banana will be or the profitability of producing it without this process unfolding.

Insight can be gained from applying this idea to the issue at hand regarding individual preference and value formation, and the possibility of individuals finding themselves in situations where they are not acting in their own rational long-run self-interest. Whether, for example, people would be happier if they acted with virtue (or less happy if they steal from others or act to harm them) can be known only after they have actually acted in this manner and then evaluated for themselves the feelings produced afterward. This line of reasoning would suggest that at any given time individuals may not be at the set of values or preferences that maximizes their well-being. However, it would also suggest that through time individuals would move closer and closer to the value and preference sets that do, as they continue to learn and adjust their behavior. If

the knowledge about how a specific set of actions impacts one's happiness takes time to unfold, for example, if it requires looking back on an action a year or more later, then this process may take longer. In the end, however, it explains only why those who are young or inexperienced may undertake actions that they learn are not in their rational long-run self-interest. It is hard to see how this could explain the persistence of such circumstances throughout one's life.

According to Kirzner (1997, 82), "What our understanding of the entrepreneurial discovery process provides, is not conviction that an unerringly equilibrative process is at all times in progress, but rather appreciation for the economic forces which continually encourage such equilibrative movement." In the end, the Austrian approach argues not that everything is always and immediately in equilibrium or at some optimal state, but simply that there are incentives to continually move in the right direction. Applying this to self-discovery and the updating of values and preferences does allow for humans to make errors in judgment, but also argues there is a continuous force moving humans to make better and better judgment calls in the future correcting mistakes from the past.

The true persistence of poor choices and values within a person, if those lead to less than ideal outcomes and happiness for the individual, is hard to explain within the context of any body of economic theory—unless the argument is somehow made that the knowledge with which we update our thinking never comes, despite engaging in trial and error. Somehow some people never attain the knowledge that other human beings get from learning the results of their actions on their well-being through ex post self-evaluation. This is further compounded by the arguments in cultural economics (discussed earlier) about how individual preferences are shaped by society and social groups. These frequently suggest that if people do tend to "copy" the preferences and values of others then they would copy the individuals who are the best role models in terms of being happy, socially accepted, and reproductively fit. If indeed living by a certain set of "good" values and preferences were the path to happiness, and a subset of the population had that set of values and preferences, and therefore was more economically and socially productive than the rest, one would think that these would be copied by other individuals attempting to make themselves happier and wealthier.

VI. The Strength of Preferences and The Active Choice Set

We now turn to an explicit discussion of the difference between active choice sets and the set of all possible goods available for consumption. Previously we had discussed one method for new items to appear in a person's utility function: entrepreneurial innovation and new products in the marketplace. However, at

any given point in time it is also the case that individuals intentionally restrict the set of goods from which they choose, in order to lower decision making costs. For example, if a person eats lunch each day at the same restaurant, he or she may pick between only a few choices on the menu, and pick them repetitively. There are many other choices on the menu that the person has never tried, and may have never considered. A person may, for example, have never had calamari, and it may be on the menu but not something the person actively considers ordering when going for lunch—the item is simply not in the person's active choice set. If a friend joins the person and orders the calamari, and the person tries it for the first time (a low-cost experiment, given that the friend paid for it), it may, moving forward, become a part of the person's choice set in the future if he or she likes it.

Individuals restrict the set of goods over which they choose to speed up (and thus lower the cost) of making decisions. The "too many cereal choices at the grocery store" problem is handled with rules of thumb to restrict the number of choices from which they actively decide. For example, someone may decide "I'm only picking among cereal that is high in fiber" or "I'm only picking among cereals that taste like peanut butter." While these rules do restrict the person from perhaps experimenting with a new type he or she might prefer over what the person does in fact purchase, they lower the time cost of making decisions, and therefore are efficient—the expected gains from widening the choice set are not high enough to justify the higher decision-making costs.

In situations where there are not many alternatives, this mechanism isn't as important. For example, starving kids in Africa are likely not very picky in terms of which food they are willing to eat, while wealthier kids in the United States may be extremely picky about which foods they will eat. Mechanisms for restricting the choice set become more valuable when the choice set is larger. The mechanism for restricting the choice set is, in fact, the strength of preferences. An individual saying "I have a strong preference for beef over chicken" or "I have a strong preference for dating brunettes over blondes" is expressing strong preferences that the individual uses to limit the choice sets from among which he or she picks. These strong preferences are useful, economically, only in situations where the number of things available is large enough to justify mechanisms for limiting the active choice set to a subset of the alternatives.

What this suggests is that individuals faced with a larger number of alternatives are more likely to develop strong preferences, and those with fewer alternatives available are less likely to. In the dating market, for example, the direct application would be that a more attractive man or woman, who would in theory have more choices from which to pick, would be more likely to express having a strong preference for a particular hair color than a man or woman who had fewer choices in the dating market on account of being less

desirable. Because income would clearly be linked to the number of choices available, one might conclude that in richer societies people develop stronger preferences, or that wealthier individuals may be more likely to be picky about the brands of things they buy or places they vacation, for example. This could further imply that brand-name loyalty, for example, is stronger among those with the largest potential choice sets—people in wealthy countries, or wealthier individuals in general.

VII. Conclusion

This article has attempted to explore the role of preferences in human choice, and to discuss how individuals' preferences evolve through time by applying concepts from Austrian theories of entrepreneurship and discovery and Objectivist philosophy to neoclassical economic models of utility maximizing. Part of the purpose in doing so is to help further interactions between marketoriented economists and Objectivist philosophers, who agree on many policy prescriptions but differ on the underlying principles and logic from which these conclusions are reached. In particular, this article has attempted to make progress in laying out the two groups' differing notions of "self-interest," whether individuals always pursue it, and whether values are subjective or objective. This article has aimed to help economists see the Objectivist arguments within the standard economic models with which they are familiar. In no way have we attempted to take sides on the differences, but rather we have attempted to understand the arguments from Objectivism within the context of standard economic models.

In addition, this article has attempted to forward our understanding of the evolution of preferences by applying theories from Austrian economics on entrepreneurship, discovery, and competition—associated with Schumpeter, Kirzner, and Hayek-to trial and error in experimenting with new goods, services, and values, and the self-discovery of one's preferences. While neoclassical models focus on equilibria and outcomes and generally assume that all potential actions that would be profitable have already been undertaken, the Austrian literature proposes that the market is a process that is dynamic and unknown, and that new opportunities are always being discovered and arising. The difference between these approaches to understanding how human values and preferences evolve is the difference between predestination and experimentation and discovery. A neoclassical model would simply say that individuals maximize lifetime discounted utility with full knowledge, and have already experimented with new products to the point where the expected benefits from additional experimentation no longer justify the expected cost. The Austrian approach would suggest that individuals constantly discover new opportunities

that they may have overlooked in the past for experimenting with what they value and/or consume. Consequently which items are "profitable" enough in generating happiness may be known only after the process of experimentation and because of it. However, even these theories would suggest that the ex post feedback on what things make an individual happier (or less happy) should be incorporated into future decisions such that human values and preferences, through time, move toward those that tend to maximize our long-run happiness.

Finally, the article has attempted to discuss how individuals limit their active choice sets to a subset of the many alternatives available by using preference *strength*. That is, strong preferences become efficient to adopt only in cases where it is worthwhile to limit the decision-making costs of choosing among alternatives. Because this decision-making cost rises with the number of possible choices, we postulate that individuals are more likely to evolve strong preferences in cases where there are more possible choices. Handsome men, and attractive women, would be more likely to be picky about dating individuals of only certain hair color, while wealthier children in developed countries are more likely to be picky about what foods they eat.

NOTES

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- 1. See Boettke 2005; 2007, Bostaph 2011, Caplan 2007a, Chamlee-Wright 2011, Horwitz 2007, and Kent and Hamilton 2011 for discussions of how the content in Ayn Rand's *Atlas Shrugged* (1957) can be used to teach or illustrate basic economic principles, including those of public choice theory.
- 2. See Younkins 2005 for a discussion of how to combine ideas from Objectivism and economics into a systematic defense of the market system.
- 3. While the literature on "internalities" attempts to model cases in which individuals' decisions could make them worse off through spillover effects within the individuals, this literature has serious flaws in its internal logic. See Whitman 2006.
- 4. Economic models generally assume diminishing marginal utility (in that additional consumption increases utility at a diminishing rate), so the second derivatives of the utility function with respect to each component would be negative.
- 5. An interesting application of this is to the philosophy of parenting; see Machan 1992 for a discussion, including the idea of "rational reconstruction," as a means for assessing the merit of force in these situations.
- 6. A related literature presents arguments about time-inconsistency in human preferences and how that impacts well-being and choice through time. See Schelling 1984, Frederick, Loewenstein, and O'Donoghue 2002, and Loewenstein and Elster 1992.
- 7. Hayek ([1968] 2002) argues that the outcomes of the competitive market process, such as the final equilibrium prices, profitability, and so on, can be discovered

- only as the result of the competitive market process and cannot be known without this process actually occurring. See Otteson 2002, for an explanation of how Adam Smith's works can be viewed in such a Hayekian way.
- 8. Castronova (2004) argues that individuals with higher social status have more influence in shaping the preferences of others, so their preferences tend to survive to a greater extent into future generations.
 - 9. See the selfish gene literature, for example, Dawkins [1976] 1989.

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