The Bond between Positive and Normative Economics

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In addition to positive economics, various activities of economists constitute something called "normative economics." In this regard, economics differs from the natural sciences. There are positive sciences of physics, chemistry, geology, and so forth, but there is no discipline or subdiscipline called "normative chemistry" or "normative geology." There is applied chemistry and chemical engineering, and all the natural sciences have applications that bear on our interests. The natural sciences may guide policies, mainly by providing information about their consequences, but there is little that resembles normative economics to be found among the natural sciences. Moreover, normative economics does not consist merely of applications of positive economics to address policy questions. It is instead for the most part limited to questions concerning welfare, and it is, to a surprising extent a unified theoretical and practical undertaking.

These facts give rise to many questions. Section one addresses the most obvious one: why is there a discipline or a subdiscipline of normative economics? Section two attempts to describe the central features of mainstream normative economics. Section 3 explains why mainstream normative economics has its distinctive contours, and section 4 addresses some of the deepest problems mainstream normative economics faces.

1 Why is there such a thing as normative economics?

Crucial to the existence of normative economics is the fact that economics takes as its object interactions among people and the consequences of these interactions. Because the subject matter concerns human actions, it is possible to pass practical judgment on it. In this regard, economics obviously differs from the natural sciences. What people do may be good or bad in different ways. So one might think that normative economics consists merely of normative claims about economies. But that leaves it a mystery why, for example, there is no discipline of normative sociology or normative psychology; and, in addition, many prominent economists have argued that normative economics consists mainly (or even entirely) of positive claims!

Although Nineteenth-Century economists were well aware of the difference between positive claims and normative claims (Mill 1843, Book VI, Keynes 1890), the discipline of political economy was not divided into positive and normative. I am not sure why, but I conjecture that the answer is that at that time economists regarded economics largely as a normative inquiry into how government ought to act in order to further (or not to stand in the way of) economic prosperity and growth. With the post-medieval development of the nation-state and the growth of the market, economic policy became a vital concern for the state. Positive inquiries into questions such as the effects of international trade on economic growth were firmly in the service of normative conclusions concerning policies. The conclusions classical political economists drew concerning the wisdom of tariffs and of market regulations in general are by far the most influential contribution that the social sciences made to policy in that period.

With the transformation of classical into neo-classical economic theory, with the subtler policy questions that modern economists raise, and with the professionalization that came at the end of the 19th and the beginning of the 20th century, positive economics came to be seen as an increasingly autonomous field of inquiry. Whereas political economists such as Malthus, Senior, Mill, and Say saw themselves as contributing to social and political philosophy and as ultimately addressing policy questions, twentieth-century economists came to regard themselves as scientists of society, and when they turned to social and political philosophy, as many of them did, they were careful to distinguish their philosophical commentary from their scientific work in economics. The author of *Capitalism and Freedom* (1962) and *Free to Choose* (1980) (Milton Friedman) wears a very different hat than the author of *A Theory of the Consumption Function* (1957) or *A Monetary History of the United States* (1963). Normative economics certainly did not disappear, but economists came to regard it as a codicil to their "serious" work in positive economics. Indeed, Friedman argues (1953) that increasing consensus in positive economics will resolve most policy disputes in normative economics.

If, as these speculative remarks suggest, economics, unlike the natural sciences, arose from normative social and political philosophy in response to the demands of policy making, then it is not surprising that there should be a normative branch of economics. Moreover, since sociology, anthropology, and psychology did not (or did not to the same extent) address policy problems, they did not face, initially at least, the same demands to guide policy.

Guiding policy is not a matter of convincing individual economic agents to aim at the desired aggregate outcome, because, as Hume (1752) and Smith (1776) so brilliantly explained, economic outcomes are very often the unintended consequences of individual choices. The incentives that individuals face should lead them to carry out actions whose aggregate consequences the policy-maker seeks to bring about. But individual economic agents may have no idea what those aggregate consequences may be. Those consequences depend, of course, on individual choice, which in turn depend on the incentives individuals face. Government policies influence individual actions by means of sanctions and incentives, and they also influence what aggregate consequences those individual choices will have. For a negative example that goes all the way back to Hume, consider what happens when government debases the currency and spends the new money it has coined. Individuals will mistakenly perceive that they are richer; and government thus unwittingly gives people an incentive to attempt to increase their consumption. But the result of the increased demand for goods will be an increase in their price, and the result of the increased money supply will be mainly an increase in prices. The result is not intended by government nor by individual consumers, but it is a reliable consequence of increasing the supply of money. This "positive" analysis is directly in the service of normative policy guidance: Informed by Hume and Smith about what the ultimate consequence will be, policy-makers should realize that debasing the currency is not good for the economy.

The ubiquitous unintended consequences that characterize economic policies and actions constitute the subject-matter of positive economics. The economy is not transparent. If government wants more funds, it cannot print money or forbid the export of gold and silver. The working class cannot be made richer by passing laws raising wages. Pollution will not be eliminated by the workings of unregulated markets, but in many cases, it can be diminished more efficiently by a regulated market than by prohibition. Normative economics obviously places large demands on positive economics. Economies are fragile; growth is not automatic. Bad choices can lead to disaster. (Just look at contemporary Zimbabwe or Venezuela.) To guide economies so that they will sustain and enrich the population of a country requires an understanding of how economies work. Normative economics could not possibly be independent of positive economics.

2 The special character of mainstream normative economics

The discussion thus far explains why there has long been systematic inquiry into economic policy and why this inquiry depends on positive economics. So one might expect that normative economics would consist of applications of positive economics to determine which policies serve the particular values to which policy-makers, the citizenry, and normative economists themselves are committed. One does find a great deal of work of this piecemeal kind, and contemporary normative economics has moved in a number of directions, particularly at the edges of mainstream economics. Moreover, there are many different projects and programs within contemporary normative economics.[1] My immediate concern is with mainstream or traditional normative economics, which is much less diverse than one would naively expect. It is focused largely on a single value: welfare or well-being (which I take to be synonymous), and it is highly unified. There is clearly a great deal more to be said about what mainstream normative economics is.

Consider the question of whether (in the United States) to limit the carbon dioxide from automobiles, and if so, whether to do so by imposing minimum fuel efficiency standards or by taxing gasoline and diesel fuel. Economists address questions such as these by the use of cost-benefit analysis (e.g. Congressional Budget Office 2003). In carrying out this analysis, they rely on positive economics to make predictions about the consequences of policies. The next step is to draw inferences from people's market behavior concerning, on the one hand, how much individuals would be willing to pay to institute the policies that they favor or to bring about the

[1] Particularly noteworthy in this regard is the work of Sen and Nussbaum on the capability approach (Nussbaum 2000, Sen 1985, Sen and Nussbaum 1993) and the work of Fleurbaey (Fleurbaey and Maniquet 2011) and Roemer (2012) on egalitarianism. This essay will, however, focus on traditional mainstream normative economics.

consequences of policies that they like and, on the other hand, what compensation they require to accept the policies and consequences that they do not like. With minimum fuel efficiency standards, fuel costs will be lower both because less fuel will be needed for every trip and also because reduced demand will lower the price of fuel. This benefit has a monetary value that is relatively easy to calculate. A tax on fuel in contrast raises the cost of fuel, but more effectively diminishes pollution, since it encourages owners of older and less efficient cars to drive them less or to change them for more efficient vehicles. The lessened pollution is a benefit for which individuals would pay if there were a market in pollution avoidance, and by examining what people implicitly pay to avoid pollution in other contexts, normative economists can impute what individuals would be willing to pay for it. After examining all the consequences, the policy with the largest net benefit (of willingness to pay over compensation required) is arguably the most efficient and the one that ought to be chosen, if efficiency is the decisive consideration.

Although cost-benefit analyses such as this one depend heavily on causal investigations of the consequences of alternative policies, they make normative claims concerning which policies to adopt. They are not merely applications of positive economics to normative questions. They have instead a distinctive structure that reflects normative choices.

1. Cost-benefit analyses focus on economic *outcomes* and *institutions*, rather than on processes.
2. They take the form of *arguments* in which premises concerning economic costs, outputs and demands coupled with implicit moral premises purport to establish conclusions concerning what which policies to adopt. These arguments seem to draw on intricate economic and ethical *reasoning*. Normative economics appears to be a rational enterprise.

3. Cost-benefit analyses are committed to ethical individualism. They evaluate policies and states of affairs in terms of their bearing on *individuals*. Questions are rarely asked about the significance of their other effects, such as those on non-human animals or local cultures, except insofar as those in turn affect the welfare of individuals.
4. Cost-benefit analyses assume that there is a single framework for economic evaluation, which they take for granted. They rarely make explicit the normative foundations for this framework.
5. Cost-benefit analyses evaluate economic states of affairs in terms of their consequences for individual *welfare*, which they infer from willingness of pay, rather than in terms of their effects on freedom, rights, justice, self-respect, or solidarity. They are concerned about which policies would enhance welfare It is for this reason that mainstream normative economics is aptly called "welfare economics."
6. Although welfare economics focuses exclusively on welfare, it is ambivalent about adding up welfare gains and losses or comparing the welfare of different people. For example, the analysis of policy governing fuel efficiency says nothing about which policy would lead to the most total or average well-being. In this regard welfare economics in the latter part of the Twentieth Century has cut its direct ties to utilitarianism. The founders of cost-benefit analysis (Kaldor 1939, Hicks 1939) intended the net benefit of willingness to pay to measure the economy's capacity to satisfy preferences rather than as a measure of an increase in welfare, but many economists now regard it otherwise.
7. In measuring welfare, cost-benefit analyses largely accept the way that markets evaluate states of affairs, when (competitive) markets exist. To exaggerate a bit, but for the absence of markets (in this case, markets where automobile pollution can be freely

bought and sold), there would be no need to interfere in the working of the economy. Normative economics has a job to do in defending competitive markets and in guiding policy when goods and services cannot be exchanged on competitive markets. I wrote that welfare economists only “largely” accept the evaluations implicit in market prices or willingness to pay, because they recognize that differences in wealth making willingness to pay a flawed indicator of preferences and hence of welfare. So welfare economists sometimes apply “distributional weights” to willingness to pay. But the basis for evaluation still lies in people’s market behavior.

8. Cost-benefit analyses suggest that there is a qualitative difference between the normative considerations that make those policies with the largest net benefit ethically attractive and other sorts of ethical considerations such as fairness, rights, equality, or freedom. Welfare economists often treat the welfare arguments as rigorous, while treating other ethical objections as flimsy or beyond the limits of rigorous discussion.
9. On the other hand, few normative economists deny that other moral considerations are relevant to evaluating policies and outcomes. The idea is instead to defend a division of labor, whereby normative economics determines which policies are most efficient – that is, which policies most increase welfare – and the policy-maker then addresses the tradeoffs between increasing welfare and defending other values, which economists ignore. Sometimes welfare economists are suspicious of other ethical considerations or even contemptuous of invoking them, but it would be uncharitable to attribute to them a repudiation of all ethical concerns apart from welfare.

These characteristics of welfare economics reflect ethical and methodological choices. Each feature can be questioned. Although welfare is obviously very important, so is freedom, the protection of rights, and the preservation of social solidarity, and normative economics might focus on them rather than focusing exclusively on welfare. Although some of the characteristics of normative economics listed above are widely shared in modern societies, others are peculiar to normative economics and call for explanation. For example, ethical individualism, the focus on outcomes, and the presumption that social policies are subject to rational evaluation through argument are widespread (though hardly universal), while the exclusive focus on welfare, as assessed by the market is distinctive of economics.

3 Explaining the peculiarities of normative economics

Let us focus the investigation of the peculiarities of normative economics on the following three questions:

1. Why does normative economics rely on a single unified view of evaluation in terms of welfare, setting aside other ethical questions that might be asked about policies?
2. Why does normative economics rely on the market's evaluation of the welfare consequences of alternatives?
3. Why does normative economics typically avoid adding up welfare gains and losses?

The answers to all three of these questions lie in distinctive features of *positive* economics and on the linkage between positive and normative economics.

As a first approximation, positive economics depicts the participants in market interactions as individuals who are rational and in specific ways self-interested. Rationality is primarily a feature of the *structure* of individual preferences. There are of course also rational and irrational beliefs, but it is convenient and sometimes reasonable to suppose that economic agents have complete knowledge of all the relevant facts. In that case, economists can ignore beliefs and take people's actions as depending on the facts and on their preferences.

In positive economics, there is rarely any explicit definition of preferences. Preferences are instead implicitly defined by a set of simple axioms including mainly reflexivity, completeness, and transitivity.[2] Preferences that satisfy these axioms and some further technical conditions can be represented by an ordinal utility function – that is by numbers that indicate whether an individual prefers one alternative to another or whether the individual is indifferent among two alternatives (Debreu 1959). These utilities have no content apart from this information concerning preference ordering, and it would be better if some other term that "utility" were used, so that it would be more obvious that linking preferences to welfare relies on a further substantive assumption. These axioms are supposed to be descriptive of the structure of people's actual preferences, and at the same time, they have some claim to be conditions of rationality. As principles of rationality, they are normative principles, even though not moral principles. To violate them is to do something foolish rather than morally wrong.

Although rationality is defined in a weak and very general way, self-interest is defined narrowly. The self-interest of consumers is simply a preference for larger commodity bundles

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[2] See for example Mas-Colell *et al.* (1995). Let "*R*" represent weak preferences – that is, *xRy* if and only if an agent prefers *x* to *y* or is indifferent between *x* and *y*. Then

- An agent A's preferences are reflexive if and only if for all alternatives *x*, *xRx.*
- An agent A's preferences are complete if and only if for all alternatives *x* and *y* either *xRy* or *yRx* (or both in the case of indifference).
- An agent A's preferences are transitive if and only if for all alternatives *x, y*, and *z*, if *xRy* and *yRz*, then *xRz*.

As I shall explain below, there is also a crucial axioms linking preference to choice.

over smaller ones. Thus, each consumer prefers to pay as little as possible for every good or service he or she purchases. The self-interest of firms consists of their seeking larger net returns over smaller. Thus, as a first approximation, that each firm seeks to charge as high a price as it can for the goods and services it brings to market. However, in a competitive market with many buyers and sellers, there is no scope for bargaining. Consumers cannot pay less than the market price, and firms cannot charge more than the market price. That price results from a largely unmodeled process whereby excess demand or excess supply raises or lowers the price until the market clears. Although many aspects of the preferences of individuals will vary from person to person, economists assume that consumers prefer larger bundles of commodities to smaller and that their preferences display diminishing marginal rates of substitution (roughly that the more of some commodity or service *S* an individual has, the less he or she is willing to pay in order to consume more of *S*). Similarly, although there may be many idiosyncratic preferences among those who control firms, economists assume that entrepreneurs agree in seeking larger net returns and that because they face diminishing returns to each input into production (holding fixed the quantities of the other inputs), a larger supply requires a higher price.

Given these assumptions about preferences and further technical (and highly idealized) assumptions, economists have proven that there will be an equilibrium, in the sense that there will be no excess demand on any market and no excess supply except possibly of goods or services that are free. What gives these idealized results of positive economics normative significance are the two central theorems of welfare economics. The first shows that competitive equilibria are Pareto optimal (or, equivalently, Pareto "efficient"). One economic outcome *B* is a "Pareto improvement" over another, *C*, if *B* satisfies somebody's preferences better than *C*, and *C* does not satisfy anybody's preferences better than *B*. An outcome *D* is Pareto optimal if and only if there are no Pareto improvements over *D*. In other words, in a Pareto efficient economic state, it is impossible to satisfy anyone's preferences more fully without causing someone's preferences to be less well satisfied. If there is something good about satisfying people's preferences, then there is something to be said normatively for competitive equilibrium. After all, in a competitive equilibrium, people are not leaving any chips on the table. There is no way to increase anybody's preference satisfaction "for free" as it were – that is, without diminishing someone else's preference satisfaction.

Although competitive equilibria provably have this virtue (under ideal conditions), it is not much to crow about. A competitive equilibrium can be a moral nightmare: all that is required is that for every alternative there is at least one person who prefers things as they are. It is also questionable whether the second theorem of welfare economics is of great moral significance. It says that (under restrictive idealized conditions) it is possible to bring about any distribution of the social product the policy maker prefers as a competitive market equilibrium, given the right initial distribution of resources or endowments. Economists have taken this theorem to justify the view that questions about efficiency (or aggregate welfare) can be separated from questions of distribution and that concerns about distribution can be met without interfering with the market.

Armed with these two theorems, mainstream normative economists are off and running. All that is necessary is the identification of welfare with preference satisfaction and the assumption that market behavior is a reliable guide to preferences. Since a competitive equilibrium is Pareto efficient, it is not possible to satisfy anybody's preferences better without diminishing the extent to which someone else's preferences are satisfied. If welfare coincides with preference satisfaction, then a competitive equilibrium is a welfare optimum in the sense that it is impossible to make anybody better off without making someone else worse off. Note that a competitive equilibrium need not be a welfare optimum in sense of maximizing total or average welfare. Nothing rides on comparing the welfare of different individuals.

Policy-makers may dislike the distribution of well-being in a particular competitive equilibrium. Mainstream welfare economists would argue that an undesirable welfare distribution is no reason to interfere with the market, by, for example, setting wages. Given the second welfare theorem, policy-makers should instead adjust the initial distribution of endowments that led to that unwanted distribution. The market is a trusty friend, guaranteed (given a set of idealized assumptions) to achieve an efficient outcome, which, by adjusting the initial endowments, can match the policy maker's distributional predilections.

This position tacitly abandons the utilitarianism that many 19^{th} and early 20^{th} century economists espoused (for example, Pigou 1920). Even if one takes the good that utilitarianism seeks to maximize to be preference satisfaction rather than happiness, the most one can say is that if an allocation is not a Pareto optimum, then it does not maximize preference satisfaction. There is no reason why the converse holds: A Pareto optimum need not maximize preference satisfaction (Le Grand 1991).

Nothing in positive economics forces normative economists to abandon utilitarianism, and some mainstream economists continue to defend utilitarianism (for example Harsanyi 1955, 1977 and Ng 1983). But positive economics apparently shows that it is possible (in principle) to explain and predict market behaviour without making any interpersonal utility comparisons (where utility, as noted above, is an indicator of the extent to which an individual's preferences are satisfied). If, in addition, one holds that welfare coincides with the satisfaction of preferences and that the only secure empirical basis for drawing conclusions concerning what satisfies people's preferences consists in information concerning market outcomes, then positive economists have effectively undermined the empirical basis for making interpersonal welfare comparisons (Robbins 1935). If there is no acceptable evidence that establishes whether a policy change adds more to the preference satisfaction of the winners than it subtracts from the preference satisfaction of the losers, then one cannot sensibly seek to maximize welfare, at least when conceived of as preference satisfaction.

So, when one recognizes that positive economics permits inferences concerning preferences from market outcomes and that normative economics have added that preference satisfaction indicates welfare, one finds answers to all three questions concerning the peculiarities of normative economics. If well-being coincides with preference satisfaction, then in competitive equilibrium (or in some outcome that mimics a competitive equilibrium) there is no way to make anyone better off without making someone worse off. From the perspective of efficiency, there is nothing more to be said, because there is no empirically respectable way other than perhaps via willingness to pay to compare gains and losses in preference satisfaction. Of course, efficiency is this sense is not all that matters, but normative economists maintain that it is the only ethical consideration upon which economic expertise bears. Normative economics is a unified theory concerning how best to satisfy the preferences of rational and self-interested individuals, where market choices indicate interpersonally incomparable preferences.

Putting normative economics to work requires a great deal more than identifying preference satisfaction with welfare and promoting Pareto improvements. Genuine Pareto improvements are few and far between. It is almost always the case that public policies create losers as well as winners. Given the rejection of interpersonal comparisons of preference satisfaction (or well-being), there is no way to judge whether the winning of the winners is greater than the losing of the losers. Such a judgment would require both interpersonal welfare judgments and also a distributional judgment. But if nothing more can be said, then normative economics will be useless. Nicholas Kaldor (1939) and John Hicks (1939) hoped to solve this problem. If the winners in moving from policy *Q* to policy *P* were able to compensate the losers so that with the hypothetical compensation, policy *P* would be a Pareto improvement over policy *Q*, then policy *P* is a "potential Pareto improvement" over policy *Q*. As a potential Pareto improvement, *P* makes it possible to satisfy preferences better than policy *Q*. *P* would thus be more efficient than *Q*. Whether any compensation should be paid is then a question of distribution, which economists can leave to the policy maker. Cost-benefit analysis, recommends policies that are potential Pareto improvements over the alternatives (Boadway 2016; Mishan 1981).

For technical reasons that I shall not go into here, this justification for favoring potential Pareto improvements and employing cost-benefit analysis to guide policy making fails (Scitovsky 1941, Samuelson 1950), even though the practical employment of cost-benefit analysis persists (Boadway 2016),[3] and as I mentioned above, some economists are now inclined to take "net benefit," that is the surplus of willingness to pay over the amount required in compensation, as indicating the increase in total well-being.

4 Problems with mainstream normative economics

[3] If one takes how much winners are willing to pay to bring about an outcome and how much compensation losers require as possible interpersonally comparable indicators of intensity of preferences, then it is possible to regard cost-benefit analysis as a means of operationalizing utilitarianism.

What unites positive and normative economics is the theory of rationality and the identification of preference satisfaction with welfare. If rationality can be characterized by conditions on preferences coupled with the assumption that preferences guide choices and, in addition, people are, to a reasonable degree of approximation rational, then the theory of rationality can be invoked to explain their choices. If people are also, as in positive economics, largely self-interested, reasonably well-informed, and competent judges of what serves their interests, then their preferences will also indicate their level of well-being. So modeling both choice and welfare in terms of rational preferences unites positive and normative economics. Theorems in positive economics concerning the properties of idealized competitive equilibria can then guide policy-makers toward policies that promote individual welfare.

This way of harnessing economics to guide policy has obvious advantages. It requires of economists very few normative commitments. They need to link preference satisfaction to welfare, to favor, other things being equal, the promotion of welfare, and to maintain the separability of questions concerning promoting well-being (efficiency) and questions concerning the distribution of well-being (equity). These commitments may appear so minimal, that normative economics may seem to require no normative commitments at all. Why not regard it as a positive exploration of what serves preference satisfaction, and leave it at that (Gul and Pesandorfer 2008)? This proposal would capture the larger part of what normative economists do, but it would fail to acknowledge the reason why economists are interested in such an exploration. Normative economists are not driven exclusively by theoretical curiosity concerning how policies affect preference satisfaction. They want people to live better. Instead of permitting them to avoid any normative commitments, standard normative economics apparently offers them a way to investigate how to promote people's well-being, without making any controversial ethical commitments.

If this seems too good to be true, it is because it is too good to be true. In fact, the apparently weak and uncontroversial ethical commitments that ground normative economics face serious criticisms. Documenting these is a task for a long book, not an essay such as this one. But it is possible here to lay out the principal difficulties with identifying well-being and preference satisfaction and to consider their significance.

There are two ways to understand the claim that well-being coincides with preference satisfaction. On the one hand, it could express a substantive and controversial philosophical theory of well-being: that the satisfaction of preferences *constitutes* well-being. Read in this way, this claim is neither innocuous nor modest. To understand the meaning and significance of this assumption, we must first clarify what economists mean by preferences. Crucial to an understanding of preferences is an additional axiom linking preference, belief, and choice, that is often left implicit. I call it the "choice determination" axiom. It says the following:

> *Choice determination:* Among those alternatives that an agent believes to be feasible, the agent always chooses an alternative at the top of his or her ranking.

If we suppose that the agent knows all the relevant facts and that there is a single feasible alternative that the agent ranks above all the other feasible alternatives, then we can simplify and take choice determination to be the claim that among the alternatives known to be feasible, individuals choose the one they most prefer. This axiom implies that an agent's preferences reflect every consideration that the agent takes to be relevant to his or her choice. If preferences determine choices, then nothing else does, except via influencing preferences. Unlike everyday usage of the term "preferences", in which people often regard duties as competing with preferences, economists model the influence of factors such as duties as influencing choices via influencing preferences. Preferences in economics are thus *total comparative evaluations*. They encompass everything influencing choices other than beliefs and physical constraints.

If one supposes that individuals have complete knowledge of all the relevant facts (and thus no false beliefs) and one supposes that individuals are entirely self-interested in the sense that they prefer *x* to *y* if and only if they believe (correctly) that *x* is better for them than *y*, then it may seem unproblematic to take preference satisfaction to constitute well-being. But (of course) people sometimes have false beliefs, and they are sometimes poor judges of their interests. In that case, they may prefer *x* to *y*, even though *y* is better for them. For example, they may neglect the importance of friendships while pursuing their careers only to find success in their efforts leaves them empty and isolated. In addition, people's preference ranking – that is, their ranking of alternatives in terms of every consideration they take to be relevant – need not coincide with their ranking of alternatives in terms of the benefits they believe those alternatives to provide for themselves. For someone who is completely self-interested, the two rankings coincide. For the rest of us, they do not coincide, and what better satisfies our preferences – that is, what ranks highest among feasible alternatives with respect to every consideration that we think to be relevant – will not always benefit us as much as other, less preferred alternatives.

So the satisfaction of people's actual preferences among alternatives could not possibly constitute their well-being. Philosophers committed to understanding well-being in terms of preferences have suggested that well-being be understood as the satisfaction of well-informed and self-directed preferences. Economists could follow them here, but they are wading in deep water. Formulating a satisfactory theory of well-being in terms of suitably corrected or cleansed preferences is a daunting task (Goodin 1986, Griffin 1986, Railton 1986).

Fortunately, there is an alternative. Rather than committing themselves to a controversial theory of well-being, normative economists might claim that the link between preference satisfaction and well-being is merely evidential. Instead of constituting well-being, preference satisfaction is evidence of well-being (Hausman 2011, ch. 7; Hausman, McPherson and Satz 2017, ch. 8). If people are knowledgeable and self-interested, their preferences will indicate what is good for them. Of course, for preferences to be evidence concerning well-being rather than something else, welfare or well-being must have some meaning. Economists must have some idea what they are talking about when they use the words "welfare" or "well-being." However, rather than engaging in the treacherous philosophical enterprise of theorizing about well-being, economists can rely on various platitudes about well-being or what one might call a folk theory of well-being. This "theory" makes unexciting claims such as:

- Typically people are better off if they are richer.
- Typically people are better off if they are healthier.
- Typically people are better off if their family and friends are healthier.

Rough claims such as these give content to the concept of well-being, and by relying on these rough claims, economists can avoid further philosophical entanglement. The claim that people's preferences are a good guide to their well-being is then an empirical generalization, not a philosophical theory.

Unfortunately, people's preferences are not always a good guide to their well-being. Exactly the same complications that showed that the satisfaction of people's actual preferences does not constitute their well-being show that their preferences are not always reliable evidence concerning their well-being. But preferences can be useful evidence concerning well-being, even if the evidence they provide is fallible. To be more specific, an agent, Anna's preferences will be a good guide to her well-being if and only if

- Anna possesses true beliefs concerning all relevant facts
- Anna's preference depends on her judgment of what is better for herself
- Anna is a reasonably competent judge of what is better for herself
- Anna's preferences are not distorted by cognitive flaws

If all these claims are true, then Anna's preferences will be a good guide to her well-being. If any of these claims are false, her preferences may still coincide with what is good for her, but there will be no good reason to believe that this is a case.

Satisfying these four conditions is a tall order. It is often the case that individuals have false beliefs concerning the relevant facts. For example, according to a survey conducted by the Pew Research Center "based on a nationally representative survey of 1,534 U.S. adults conducted May 10 - June 6, 2016" only about a quarter of Americans believe that there is a scientific consensus that human activities are the source of climate change.[4] False beliefs are a ubiquitous feature of human life. People are obviously not always self-interested, and, in addition, it is often hard to judge whether they are self-interested, in part because people often do not clearly distinguish what is better for them from what is better for others or better in general. When Anna takes charge of organizing flood relief, is she seeking to benefit the victims, or is she bolstering her reputation in the hope of attracting more clients? Furthermore, the third condition is frequently not satisfied. Even if people are attempting to benefit themselves, they may not know how to do so. Judging what is truly better for oneself is enormously difficult, and most

[4] http://www.pewinternet.org/2016/10/04/public-views-on-climate-change-and-climate-scientists/

people are not accustomed to asking "What would be better for me?" each time they make a decision. When deciding what wording to use in the previous sentence, it did not occur to me to ask, "Which wording would be better for me?" Finally, as the findings of behavioral economics over the past generation have made clear, people's decision-making is shot full of cognitive foibles (for example, Kahneman, Slovic and Tversky 1982;, Lichtenstein and Slovic 1971, Camerer, Lowenstein and Rabin 2004, and Lowenstein 2008). The basic axioms of rational choice are often violated. When described one way, agents may prefer *x* to *y*, while with a different description agents may have the opposite preferences over exactly the same alternatives (Tversky and Kahneman 1981).

Recognizing all these difficulties with taking preferences to indicate welfare and, on top of these, the technical objections to cost-benefit analysis alluded to at the end of the previous section, one might be tempted to abandon cost-benefit analysis and the entire framework of mainstream normative economics. Lots of opportunities for piecemeal normative analysis would remain, but economists would no longer have any unified way of appraising economic outcomes. That would be a serious loss, because, as fallible as they are, the findings of normative economics are helpful. Knowing that one policy has a much larger net benefit than another does not automatically tell policy makers which policy to adopt. But it is useful information.

In light of the problems with taking preference satisfaction to indicate well-being, what should economists do if they want to maintain their focus on welfare or efficiency? It seems to me that there are four alternatives:

1. Limit assessments to those domains in which these conditions are met.
2. Change the circumstances in which preferences are elicited so that the conditions are met.
3. Cleanse elicited preferences of distortions.

4. Measure welfare some other way than by relying on preferences.

These alternatives are not mutually exclusive, and there is no reason why some of them cannot be combined.

The first alternative derives from the recognition that in some domains individuals are better informed and more self-interested than in others. For example, individuals are probably reasonable well-informed concerning the risk that their house will burn down, and it is also the case that their concern to protect it and to insure themselves is self-interested. On the other hand, people's concern to prevent the clubbing of seal pups for their fur is unlikely to be self-interested and their knowledge of the frequency of the practice and the likelihood of the seal pups surviving if protected is probably at best fragmentary. Information on willingness to pay will be useful with respect to fire insurance policies, but not with respect to policies governing seal hunting. This alternative will significantly limit the domain of application of normative economics.

The second alternative proposes to elicit preferences in a way that will make it more likely that the four conditions are met. For example, one can provide individuals with information about the prospects of seal pups, the pain that clubbing them causes to them and the distress it causes other seals, and one can specifically ask people to judge what difference clubbing seal pups makes to the individual's own life. It is unlikely that one will be able fully to satisfy the four conditions on preferences, but it seems that one can come closer.

The third alternative tries to come closer to satisfying the four conditions by cleansing preferences of known distortions. For example, behavioral economists have documented what they call an "endowment effect" (Kahneman, Knetsch, and Thaler 1990). Individuals place a higher value on a commodity when they own it and are contemplating selling it than when they do not own it and are contemplating purchasing it. Knowing that there is an endowment effect and its approximate magnitude, one can adjust downward the amount that individuals claim that they need in compensation for a change that deprives them of something. Actually carrying out this cleansing and correction of preferences is bound to be both difficult and controversial.

Lastly, one might either supplement and correct the information about well-being that preferences provide or substitute measures of pleasure and pain for preferences as a source of information concerning subjective well-being. The last two decades has seen a resurgence of interest in hedonic indicators of well-being (Kahneman 2000; Kahneman and Sugden 2005; Kahneman and Krueger 2006, Layard 2006). Some of this work is committed to hedonism – that is, to the view that well-being consists in pleasurable mental states – but just as there is an evidential view of the relationship between preference satisfaction and well-being, so there is an evidential view of the relationship between pleasurable mental states and well-being. Although the literature makes it appear that one faces a choice between either relying on preferences to draw conclusions concerning well-being or relying on measurements of subjective well-being, there is no reason why these cannot be combined. An examination of the details of hedonic measures and an assessment of their prospect as guides to measuring welfare are however beyond the scope of this essay.

5 Conclusions

Normative economics is special. It is not just a collection of moral musings on economic issues. To the contrary, it is a unified theory of economic assessment that focuses exclusively on the assessment of the efficiency of economic arrangements at enhancing the welfare of individuals. Because it takes preferences to guide people's actions and at the same time to measure people's well-being, findings in positive economics concerning how economic institutions and policies bear on people's preferences have immediate normative implications. Yet welfare is not constituted by the satisfaction of preferences, and preference satisfaction is a flawed indicator of well-being. There are ways to lessen the flaws, but the difficulties facing normative economics are serious. As the only well-developed game in town conveying quantitative information, normative economics can hardly be abandoned, but there is ample reason to seek elsewhere for help in assessing economic outcomes and institutions.

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