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The Behavioral Challenge to Normative Economics

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1. Introduction

Behavioral economics seems to destroy the basis for many ideas and arguments at the core of traditional economic policy advice. Among the ideas under fire is the identification of individual welfare and preference satisfaction: if Adam prefers A over B, he is better off if he gets A instead of B. This idea is based on the neoclassical hypothesis that each person has complete and transitive preferences that are exogenous to the decision problem at hand. Building on the notion of individual welfare are the definitions of Pareto improvements, efficiency and social welfare functions. Behavioral economics implies that these concepts are ill-defined or inapplicable. How should economists react to this challenge?

In this paper, I consider this question under the assumption that behavioral economists are more or less right in their criticisms of the neoclassical theory of human behavior. The answer, then, depends on what, exactly, is challenged. This is not as clear as it seems.

A popular interpretation views the challenge as a challenge to normative economics.[1] According to its proponents (see, e.g., Caplin and Schotter 2008a, Sugden 2011), normative economics is a combination of positive economic theory with value judgments. These value judgments are considered necessary for deriving policy advice. The main tradition in normative economics is supposed to be neoclassical welfare economics (NWE). Proponents of normative economics argue that the behavioral challenge to NWE forces economists to turn to philosophy or, more specifically, to ethics. In order to deal with an update in their positive theory, economists must update the value judgments they use as a basis for policy advice. Or so it seems.

Against this position, I argue that normative economics does not exist, or if it does, that it is certainly not part of the neoclassical mainstream. Neoclassical welfare economics (NWE), at least, is a positive theory. The view that NWE is normative derives from a mistaken view about the interaction of facts and values in science.[2]

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[1] Hands (2012) rightly points out that 'normative' need not mean 'ethically normative'. However, this is the relevant meaning of 'normative' in the present context, although occasionally a broader meaning is also taken into consideration (mainly in appendix B). The distinction between positive science, normative science and art (or technology) is quite old; according to Hands (2012), a standard reference is Keynes (1890/1973). Keynes considers normative science as part of (applied) ethics (which coincides with the view taken in the present paper), although he does not discuss the question of which kind of statements belong to normative economics – a field that, in his view, is concerned with "the investigation of economic ideals and the determination of a standard by reference to which the social worth of economic activities and values may be judged" (Keynes 1890/1973, p. 32). Technologies, in his view, are collections of 'precepts', that is, absolute or, at least in the case of economics, hypothetical imperatives (see, e.g., Keynes 1890/1973, p. 79). This view of technologies is criticized below.

[2] The customary expression 'facts and values' is used here although the idea, which might be read into the expression, that 'values' are something more than valuations by individuals is rejected.

Obviously, NWE is in trouble if behavioral economists are right. But if one misinterprets NWE as a normative theory, one's answer to the behavioral challenge is bound to be mistaken. In fact, economists can solve the problems for policy advice posed by behavioral economics without any recourse to philosophy or ethics. Their traditional professional code of conduct is quite up to the task.

Specifically, the behavioral challenge requires no re-definition of individual welfare or efficiency in the light of a new behavioral theory of human behavior. No philosophically grounded social welfare functions need to be found. Instead, economists in the role of advisors should ask their clients what they want. This is the perspective of applied, in contrast to normative, economics. Applied economics also faces a behavioral challenge, but the answers to this challenge are very different.

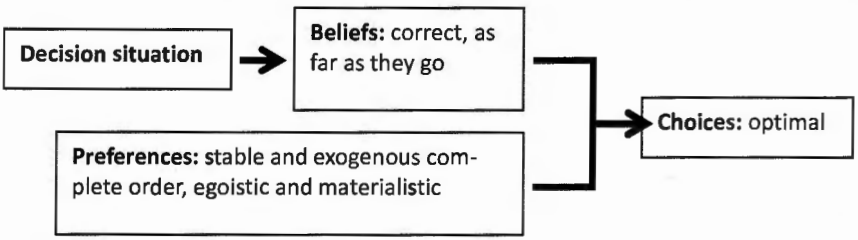
The paper proceeds as follows. Section 2 contrasts neoclassical and behavioral economics. Section 3 assesses the behavioral challenge under the assumption that behavioral economics is more or less right in its criticism of neoclassical economics. First, the challenge is considered from the perspective of normative economics. From this perspective, it indeed seems as if an input from ethics were needed in order to answer the challenge. In section 4, the normative perspective is criticized and confronted with an alternative: the perspective of applied economics. It is argued that the puzzles seemingly posed by behavioral economics vanish through this change of perspective, and that the behavioral challenge to applied economics is, in principle, not difficult to deal with. Section 5 concludes. Two appendices provide supporting material. Appendix A discusses the paper of Gul and Pesendorfer (2008), who argue that, in fact, there exists no behavioral challenge to NWE. Appendix B explains the character and the rational discussion of normative statements.

2. Neoclassical and Behavioral Economics

The basic view of human behavior in most of economics, whether neoclassical or behavioral, is that an individual's choices are jointly caused by the individual's beliefs and the individual's preferences, and that a large part of the causally relevant beliefs represent aspects of the decision situation.

Neoclassical and behavioral economics differ widely on the details, of course. According to the most narrow version neoclassical economics, the *homo oeconomicus* (HO) model (see fig. 1), beliefs about the decision situation and the consequences of the individual's choices (possibly in the sense of a probability distribution) are correct. Preferences are assumed to be stable over time, independent of the decision situation, complete and transitive, and egoistic and materialistic (that is, concerned only with the individual's own consumption of material goods and services). There is no sense in which an individual's choices can be mistaken. However, an advisor who knows the individual's preferences may still be able to point out better choices, but only if the advisor has more information about relevant aspects of the decision situation.

Figure 1: The explanation of choices according to the homo oeconomicus (HO) model



According to behavioral economics, preferences are not necessarily egoistic and materialistic. Individuals are assumed to have social preferences, some clearly based on emotions like love, hate, envy, anger, others less immediately tied to emotions like a preference for recognition and status. Moreover, their preferences include moral convictions about values like fairness, justice, and equality.

Behavioral economists not only have different ideas about the content of preferences but also reject neoclassical assumptions about the structure of preferences. Preferences may be intransitive (e.g., hyperbolic discounting, preference reversals) or even incomplete. People may even have no stable preference orderings that are exogenous to decisions problems. In these cases, preferences – if they exist at all – are constructed in the course of decision making and influenced by the presentation of the decision problem and unrelated variables (e.g., framing effects, anchoring heuristics).

Table 1: Differences between neoclassical and behavioral economics

	Neoclassical Economics	*Behavioral Economcis*
Content of preferences	egoistic and materialistic preferences	in addition, other-regarding preferences
Structure of preferences	complete and transitive	incomplete and intransitive
Stability of preferences	stable and exogenous to decision situation	instable, constructed 'on the fly', influenced by decision situation
Information processing	correct appraisal of decision situation, use of Bayes' theorem, optimal choices	violations of Bayes' theorem, decision heuristics, suboptimal choices

Information processing is generally viewed to be subject to biases resulting from the use of decision heuristics that lead to systematic deviations from neoclassical assumptions, for instance, to violations of Bayes' theorem. In view of these assumptions, it is

no surprise that behavioral economists claim that people often make mistakes, that is, they choose options that are worse for them, in some sense, than other options even in situations where they do not lack relevant information.

The difference between neoclassical and behavioral economics can then be summarized as in table 1.

Subsequently, I assume that the positive claims of behavioral economists about human decision making are more or less correct. On the basis of this assumption, I first describe the behavioral challenge to normative economics as it is often seen, and then present a different view.

3. The Perspective of Normative Economics

3.1. Neoclassical Welfare Economics and Behavioral Economics

Wikipedia (15.06.2012) defines normative economics as "that part of economics that expresses value judgments about economic fairness or what the economy ought to be like or what the goals of public policy ought to be". According to Caplin and Schotter (2008a, p. xviii), the standard interpretation of normative economics is "the study of how best to make policy decisions for an individual or a group whose motivations are known to the policy maker".

A very clear characterization of normative economics is given by Sugden (2011, p. 2):

> "For the last seventy-five years, the main tradition of normative economics has been that of neoclassical welfare economics. ... It aims to evaluate alternative states of affairs for a society from an impartial point of view. It tries to answer the question: 'What is good for society, all things considered?' It takes the position that the good of society is made up of the good or welfare of each of the individuals who comprise that society. Thus, welfare economics has to assess what is good for each person, all things considered, and then aggregate those assessments. How assessments of individual welfare should be aggregated has been one of the core theoretical problems of welfare economics, for which there is still no universally accepted solution ... For many years, however, there was general agreement on the criterion for assessing what is good for each individual, considered separately. The traditional criterion is preference-satisfaction: if some individual prefers one state of affairs to another, the former is deemed to be better for him than the latter."

These statements seem to circumscribe the usual conception of normative economics. It is a field that is concerned with the question of what is good for society, all things considered. The main tradition in this field is neoclassical welfare economics (NWE), which holds that the good (or welfare) of a society is an aggregate of the good (or welfare) of the individual members of the society. Individual welfare is measured by preference satisfaction: if a person prefers A to B, then the person's welfare increases if the person can exchange B for A. While there is no agreement within NWE about how to solve the aggregation problem, we might add that a Pareto improvement is usually considered as an aggregate welfare improvement, and efficiency is often considered as one requirement for a socially optimal solution.

NWE has been challenged by the development of behavioral economics. The extension of the content of preferences can be viewed as an extension of neoclassical economics and has already been considered, in a very general way, by Arrow (1963). This extension leads to problems for welfare economics: preferences in behavioral economics turn out to be defined over complex social states or even processes, not only over individual consumption bundles. This means that externalities abound. While the principles of welfare economics remain untouched, it may be doubted that they can be applied in practice.

Deviations from the neoclassical assumptions about the structure of preferences (i.e., completeness and transitivity) are even more damaging. The usual definitions of Pareto improvements or of efficiency become irrelevant because what people prefer is not uniquely defined. If behavioral economists are right, NWE must be replaced by something else (see, e.g., von Weizsäcker 2005 and Bernheim and Rangel 2008 for proposals).

Moreover, behavioral economics casts doubt on the idea that individual welfare can be measured by preference satisfaction (Sugden 2011, p. 2-3). NWE is often based on the revealed-preference approach: if a person can choose between A and B and chooses A, this shows that the person prefers A to B (or, at least, that the person does not prefer B to A). Thus, individual choice behavior is considered as a reliable guide to individual welfare. Behavioral economics, as already explained, challenges this view, claiming that people often make mistakes (Loewenstein and Haisley 2008). This idea is used to justify paternalistic policies, while NWE is assumed to be non-paternalistic (Sugden 2008, p. 227).

Even if one could retain the assumption that individual welfare can be represented by preference satisfaction, Pareto improvements and efficient allocations look decidedly less attractive if they are based also on spite and envy.

We consider two simple examples illustrating the problems created by behavioral economics for NWE.

3.2. Moral Preferences and Material Wellbeing

Consider a simple problem of allocating goods between two persons, Adam (A) and Eve (E). We go beyond the narrow *homo oeconomicus* (HO) model by assuming that both have moral preferences in addition to the egoistic and materialistic preferences covered by the HO model. In order to simplify the problem, we assume that these two kinds of preferences are separable: utility functions have two arguments called 'material wellbeing' ($u_j, j = A, E$) and 'moral satisfaction'.[3]

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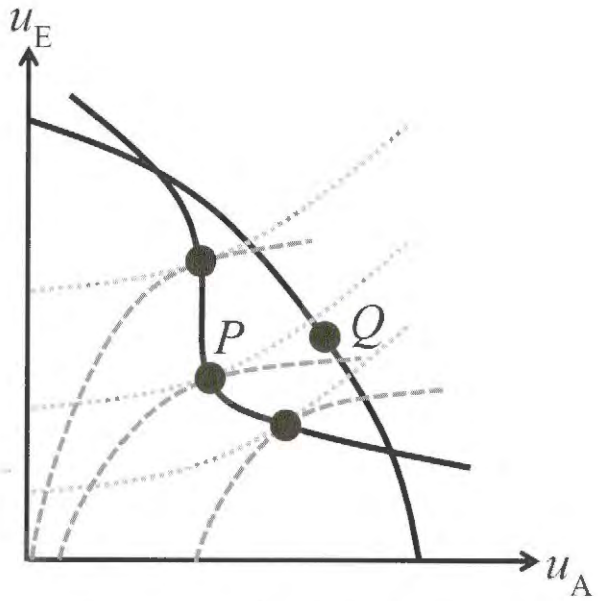
[3] Cf. also Arrow (1963, p. 18), who distinguishes "tastes" referring to an individual's "direct consumption" and "values" that may involve the individual's "standards of equity". Arrow considers mainly preferences that are defined on a space of social states (like allocations of goods and factors of production). The separable case considered here is a special case. Other cases are also discussed by Arrow. For instance, Adam might make his valuation of Eve's consumption dependent on her tastes, preferring that she gets whatever she wants (an exam-

Figure 2: Material satisfaction and overall satisfaction with spiteful preferences.



P is efficient with respect to overall preferences (with indifference curves represented by broken lines). Q is efficient with respect to material preferences.

Moral satisfaction is assumed to take on a very simple form: each person considers the other person's lifestyle as immoral and, therefore, views the other person's material wellbeing as a 'bad'. Overall preferences, then, are represented by utility functions $w_A(u_A,u_E)$ and $w_E(u_A,u_E)$, where the marginal utility of a person's own material wellbeing is positive and the marginal utility of the other person's material wellbeing is negative. Thus, preferences are 'spiteful' in the terminology of experimental economics.[4] As we know from, for instance, religious conflicts, this kind of 'spite' can have, and often has, moral foundations (whether we like such moral preferences or not).

We assume that material wellbeing depends in the usual way on the distribution of scarce resources between Adam and Eve, leading to a material-wellbeing frontier, while a different frontier results for overall utility (see figure 2). Depending on whether efficiency is defined on the basis of 'spiteful' overall preferences or only on the basis of material wellbeing, the relevant efficiency locus is different.

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ple of interdependent valuations also leading to separability), or he could prefer that she gets whatever she actually chooses (an example of procedural preferences).

[4] Cf., e.g., Saijo and Hideki (1995) for an early use of 'spite' or, in biology, Hamilton (1970), both with reference to behavior.

In figure 2, the relative position of the loci implies a conflict between the two possible measures of efficiency. From a theoretical perspective, overall preferences should count for efficiency considerations, implying that an allocation leading to point P in figure 2 is efficient while an allocation leading to point Q is inefficient. If a preference for efficiency is adopted as a kind of minimal value judgment, and if efficiency is defined on the basis of overall preferences, the allocation should be chosen such that it is on the efficiency locus running through P. This could mean that Adam and Eve may both loose material wellbeing because of their spitefulness—a not very attractive option.

One might, of course, argue that, in the example of figure 2 at least, there are points where both definitions of efficiency coincide: all points on the material-wellbeing frontier except the segment between the intersection points of the two frontiers. This would lead to an – again, quite unattractive – constraint for redistribution. Let us assume that the current allocation leads to P. The requirement that both kinds of efficiency are satisfied would imply that only more extreme distributions of material wellbeing are morally acceptable. A redistribution leading to Q, for instance, would be ruled out.

In this situation, it seems more attractive to say that spite should not be taken into consideration. Economists, one might argue, should recommend allocations that lead to an efficient distribution of material wellbeing. This seems to be in the spirit of typical practical recommendations by economists, who usually consider only material wellbeing and would ignore the question of whether Adam may begrudge Eve some material improvements that are costless, in material terms, to himself. But would it be morally acceptable to ignore an important aspect of individuals' preferences? After all, as already explained, the 'spiteful' preferences may be based on moral convictions, possibly with a religious basis. This is a difficult question. It is unclear how welfare should be measured in such a situation, and it seems that economists must turn to ethics in order to solve this problem.

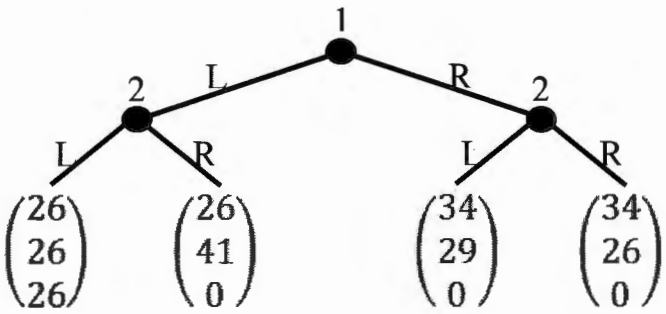
3.3. Quasi-hyperbolic Discounting

Let us consider an example (adapted from Gul and Pesendorfer 2008, pp. 30-32) involving just one person, Adam, faced with an intertemporal decision problem. There are three periods. In periods 1 and 2, Adam decides between L and R. There are, then, four paths Adam might take: LL, LR, RL and RR, where the first (second) letter stands for the decision in period 1 (2). There is no uncertainty. First-period payoffs are $a \in \{a_L, a_R\}$. Second-period payoffs are $b \in \{b_{LL}, b_{LR}, b_{RL}, b_{RR}\}$. Third-period payoffs are $c \in \{c_{LL}, c_{LR}, c_{RL}, c_{RR}\}$. Indices relate payoffs to decisions. The decision tree with numerical values for the period payoffs is given in figure 3.

The intertemporal utility function is linear in period payoffs with discount factor $\delta = 0.9$ and present bias $\beta = 0.5$:

$$
\begin{aligned}
& u_1(a,b,c) = a + \beta\delta b + \beta\delta^2 c \\
(1) \qquad & u_2(a,b,c) = b + \beta\delta c \\
& u_2(a,b,c) = b + \beta\delta c \; u_3(a,b,c) = c
\end{aligned}
$$

Figure 3: Intertemporal decision problem with three periods, decision nodes for two periods and resulting payoffs for three periods



Given the period payoffs of figure 3, we can compute the intertemporal utilities in each period, depending on the path through the decision tree (see table 2).

Table 2: Intertemporal utilities (rounded, u_i biased and v_i unbiased) and corresponding preferences for figure 2's decision problem.

	LL	LR	RL	RR	preferences
u_1	41	37	40	39	LL>RL>RR>LR
u_2	32	34	24	22	LR>LL>RL>RR
u_3	22	0	0	0	LL>LR~RL~RR
v_1	60	53	51	49	LL>LR>RL>RR
v_2	42	34	24	22	LL>LR>RL>RR

From the perspective of period $i = 1,2,3$, Adam's path preferences are represented by u_i. We get LL $\succ$ RL $\succ$ RR $\succ$ LR from the perspective of period 1, LR $\succ$ LL $\succ$ RL $\succ$ RR from the perspective of period 2, and LL $\succ$ RL ~ RR ~ LR from the perspective of period 3.

Adam's decision making might be naïve or sophisticated. A naïve Adam will maximize his intertemporal utility in each period, which means that he ends up with LR. This decision is caused by his present bias, which leads him to abandon the originally preferred path LL in period 2 in favor of the high immediate payoff, despite the ensuing low payoff in period 3.

A sophisticated Adam plays, in period 1, a strategic game against his own period-2 self. He anticipates that he will not stick to LL in period 2. He can improve the results from the perspective of period 1 by choosing R in period 1, which will lead him, in period 2, to choose L. Thus, sophisticated choice results in RL instead of LR.

How should we, in this case, measure welfare from a neoclassical perspective? If we take the perspective of Adam in period 1, the decision problem leads to a suboptimal outcome, even in the case of sophisticated choice. From the perspective of period 2, an optimal outcome results only in case of naïve choice. Which of the two Adams should be heard when we decide about policy questions that could affect Adam's choices? For instance, a sophisticated period-1 Adam might be in favor of a regulation that prevents the choice of LR, allowing him to enforce LL. Period-2 Adam, however, might resent such a regulation as a case of misguided paternalism – after all, deviating from LL is his decision, and he knows best.

Several solutions seem possible. We could consider Adam as three persons inhabiting one body – one person for each period – and apply efficiency considerations to this group. According to this approach, LL and LR would both be efficient while RL, the result of sophisticated choice, would be inefficient. In order to help the three Adams and ensure that they come to an efficient solution, then, one might propose to a regulator that he forbids either LR or RL and RR.

Alternatively, one could argue, as it is often done, that Adam's present bias is irrational (cf. Gul and Pesendorfer 2008, p. 31, who, however, reject this idea). By setting $\beta = 1$ in (1), we get 'unbiased' intertemporal utilities v_1 and v_2 instead of u_1 and u_2 (u_3 is unaffected). The consideration of 'unbiased' utilities supports the decision of naïve period-1 Adam and speaks against the decision of a sophisticated period-1 Adam. In order to help Adam to decide rationally, one might propose to a regulator to forbid LR.

As an alternative to advising a regulator, one might consider giving advice to Adam. Let us assume that we know Adam to be naïve. Should we enlighten him, thereby supporting period-1 Adam against period-2 Adam?

Neoclassical welfare economics cannot tell us which of the solutions is morally correct. Again, it seems that economists must turn to ethics in order to solve their problems.

4. From Normative to Applied Economics

4.1. Facts and Values in Science

As we have seen, behavioral economics confronts neoclassical welfare economics with difficult puzzles whose solutions seemingly requires welfare economists to take recourse to ethics. Actually, however, these puzzles result solely from a completely mistaken view of NWE as normative economics, a view that, in turn, is often connected to an equally mistaken view of the relation between facts and values in science. Putting matters straight on this level makes the puzzles disappear.

When economists explain choices as the result of the interaction of preferences and beliefs, they already presuppose the distinction between fact and values, and, correspondingly, between positive and normative statements. Beliefs refer to facts, while preferences cover attitudes towards values. In the terminology of economics (and, especially, behavioral economics), then, moral convictions are a special case of preferences

(cf. also fn. 3 above): from the love of chocolate to the love of justice, the term 'preferences' covers the full range of likes and dislikes, including moral and other normative convictions.

The distinction between facts and values is, for instance, the starting point of Gul and Pesendorfer (2008). Their position on this issue is shared by many economists. There is science on the one hand, and politics on the other. Political proposals cannot be justified by recourse to science. One needs science plus value judgments. There are two roles for economists: the pure scientist, who is concerned with research and gives no political advice, and the economist as advisor, consultant, advocate of a cause or – Gul and Pesendorfer's favorite invective – social therapist, who recommends certain policies on the basis of a combination of science and value judgments. The pure scientist is concerned with positive economics, while the advisor or therapist is concerned with normative economics.

This view is often criticized because even pure scientists need value judgments in order to choose topics for research, and further value judgments in order to evaluate the results of research. Or, in other words, scientists make choices, and choices are made on the basis of preferences. Thus, it is argued that facts and values are 'entangled' in such a way that even pure science cannot be value-free in a meaningful sense.[5]

The entanglement view is based on the standard view of human behavior (see figure 4). Economists and other scientists choose, even in pure science: they choose topics for research; they choose among different methods; they choose theories for the purposes of explanation and prediction; they choose theories as targets of testing; they choose theories as the starting point of further theoretical development. Obviously, economists' choices must be based on their preferences. When we consider scientists' choices, then, judgments of facts and value judgments seem to be hopelessly 'entangled'.

However, the entanglement view is as untenable as the position that policy advice is necessarily based on value judgments. Both positions miss an elementary logical point that, since more than forty years, has been emphasized forcefully by Hans Albert (e.g., 1968/1985, pp. 50-53; 2000, p. 49, p. 214-215). It is not true that advice must take the form of recommendations derived from theories plus value judgments. Typically, scientific advice takes the form of technological statements, that is, positive statements about how to reach certain aims, or about conflicts or other relations between aims. No value judgments or other normative statements are needed as premises in order to derive these statements. The technological part of a science is not normative science; it should be called, more properly, 'applied science'. To call applied economics 'normative economics' would be as silly as calling engineering 'normative physics' (cf. Vanberg 2006, p. 1-2).

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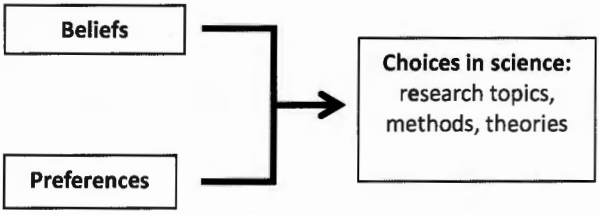
[5] See, e.g., Dasgupta (2009). Hands (2012) also defends an 'entanglement view', which, however, just emphasizes the complexity of the role of valuations in science, is mostly consistent with the position taken in the present paper, and, specifically, has no negative implications for the possibility of a value-free positive science of economics. Here, the label 'entanglement view' is reserved for the more radical position.

Scientific methodologies are technological in the same sense (Hans Albert 1987). They tell us how to do science if we are interested in knowledge and the growth of knowledge. Methodology, so to speak, is applied epistemology. When scientists use established methodological rules for distinguishing between 'good' and 'bad' theories, they are not tainting science with value judgments. If some hypotheses are retained while others are discarded, this reflects not the political, social or moral preferences of the scientists but the established methodological hypotheses about how to find out the truth about matters.

Figure 4: Choices in science



Of course, scientific competition may fail, and methodologies appropriate for pursuing knowledge might be replaced by inappropriate methodologies or even ideologies. While it can be a useful diagnosis to point out methodological weaknesses and ideological blinders, it would still be false to claim that the theories propagated by ideologists are 'tainted by' or 'entangled with' value judgments. This fallacy is often called the genetic fallacy. Scientific theories and hypotheses remain positive statements, even if they are proposed for ideological reasons. For those interested in knowledge, the important question is whether these theories and hypotheses are true, or which of their implications are true. The answer to this question does not depend on whether somebody else accepts or rejects these theories and hypotheses for reasons that have nothing to do with the pursuit of knowledge.

While it can be difficult, then, to disentangle facts and values as causes of scientific decision making, it is easy to disentangle them on the level of scientific output. All normative statements or value judgments do not belong to science. Normative connotations of the words used to express theories or observations are as irrelevant for a methodological evaluation as the political, social or moral convictions of the authors. Methodological evaluations of the output of science should be based on rules that are to be viewed as part of a technology for the pursuit of knowledge. From this point of view, such evaluations can be criticized as inadequate and improved or discarded.

Economists who propagate normative economics rarely offer a clear analysis of the interaction of facts and values in economics. They never mention the obvious fact that NWE is value free: it contains no normative statements, neither in its theoretical core

nor in its more applied subfields. If it is true that NWE is the main tradition in normative economics, normative economics is hardly normative.

The first fundamental theorem of welfare economics, for instance, states that, under certain conditions, any competitive equilibrium is efficient. 'Competitive equilibrium' and 'efficient' are defined in non-normative terms. Whatever the exact wording, the theorem is a positive statement, that is, it is either true or false.[6] Specifically, since 'efficiency' is an explicitly defined technical term, its normative connotations are irrelevant for the interpretation of the theorem. Therefore, a normative reading of the first theorem would rest on a misunderstanding. In particular, the first theorem certainly implies no recommendation to implement efficient allocations, or any other policy recommendations.

As we have seen, behavioral economics causes problems for NWE. However, NWE is not normative. As far as NWE is concerned with economic policy, it is an applied science. This makes a difference.

4.2. How to Be an Applied Economist

Let us consider another piece of neoclassical welfare economics (NWE). In textbooks of trade theory, it is shown that, under certain conditions, moving from autarky to free trade is a potential Pareto improvement: trade generates winners and losers in a country but the gains of the winners are great enough so that they could compensate the losers. Thus, from trade theory we can derive a statement like 'Under certain conditions, the move from an autarky equilibrium to a free-trade equilibrium is a potential Pareto improvement'. This is a positive statement. It does not recommend the move from autarky to free trade. It just picks out certain consequences of such a move.

Possibly, the statement is only of interest if there is somebody who thinks that potential Pareto improvements are worth pursuing. In this respect, the statement is not different from any other technological statement. Textbooks explaining how to build an electrical engine are only interesting if there is somebody who would like to build an electrical engine. In the words of Vanberg (2006) and Sugden (2011), applied sciences need an addressee. It would be totally absurd to say that an engineering textbook recommends building electrical engines. It says how to do it, addressing, implicitly, those who would like to do it.

It is sometimes argued that applied science is concerned with hypothetical imperatives ('if you want Y, you should do X') instead of categorical imperatives ('you should do X'). This is either false or misleading. The statements that follow from applied science are 'X achieves Y', as in the example above: moving from autarky to free trade achieves a potential Pareto improvement. This is obviously not the same as the hypothetical imperative 'if you want Y, you should do X': X may have unwanted side ef-

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[6] If the 'conditions' include all the axioms of general equilibrium theory, the first theorem becomes an analytic truth. There is a better way to state it, namely, as a deductive consequence of a theory of consumer behavior, producer behavior, and the working of markets. In this version, it is a synthetic statement. Cf. also Max Albert (2013).

fects, and avoiding these side effects might be more important to you than achieving Y. In this case, you may still want Y but you would be ill-advised to do X.

Maybe this problem can somehow be circumvented by stating hypothetical imperatives more carefully. However, it would still be the case that hypothetical imperatives either do not belong to applied science or are superfluous: If the 'should' in he hypothetical imperative has a normative meaning, the hypothetical imperative cannot derive from an applied science. If it has no normative meaning, then 'if you want Y, you should do X' is a highly misleading version of 'X achieves Y'. In both cases, discarding hypothetical imperatives contributes to clarity.

The recent discussion has emphasized the need to specify the addressees of recommendations. However, both normative recommendations and technological advice need to address somebody. The difference is that normative recommendations overrule the addressees' own goals and normative convictions, either by ignoring them altogether or by adjudicating between the goals and convictions of different addressees.

Consider, for instance, Sugden's (2011, pp. 15-21) distinction between three aspects of politics which involve different potential addressees of economic recommendations.

- Politics as executive action: The addressee is a decision maker with discretionary power who makes decisions for a group he does not belong to and desires to use this power for the social good.
- Politics as debate: The addressees are participants in a debate about the public good, like, e.g., parliamentarians or academics – a debate where impartial judgments are required.
- Politics as negotiation: The addressees are the members of a group who must choose rules for their interactions.

In this classification, addressees loom large but their own goals and convictions are not immediately addressed. This approach misses the main point. Whether the issue is politics, business, or everyday life does not matter. The fundamental distinction is between applied economics, that is, technological advice to people about how they can reach their goals, and a rational discussion about their goals and their normative convictions, which would be the province of ethics. In both cases, the addressees' goals and normative convictions must, of course, take center stage, while the social good or impartial judgments as perceived by the advisor are quite irrelevant.

In all three of the above cases, economists can give relevant technological advice without tackling ethical problems.

For simplicity, let us ignore the case of consulting, where the consultant can immediately address people and hears what they have to say. Instead, we consider the academic context, where an applied economist writes a paper.

For a scientific paper in applied economics, the author has several options. He needs some information about the goals of the people he chooses to address. He then can try to tell them how they can reach their goals. Or he may discuss policy proposals and tell them how their goals will be affected. This is technological advice. No philosophical guidance is necessary. Nor does the applied economist need to solve philosophical puz-

zles. He needs no idea about the social good or social welfare because there is no need at all to adjudicate between the different goals of different people.

As emphasized by Buchanan (1964), telling people about Pareto improvements has a practical side: it points out possible agreements. However, advice need not be restricted to Pareto improvements. It is equally possible to advise a majority (say, the poor in a country) how to extract more benefits from a minority (the rich). Of course, no recommendations are involved, neither in the form of a categorical imperative like 'Soak the rich' nor in the form of a hypothetical imperative like 'If you want to improve your lot, then soak the rich'.

In the case of advising a decision maker with discretionary power or a parliament, the applied economist can, again, focus on the goals of the addressees and the policies under discussion and analyze trade-offs, means of achieving the goals, side-effects of certain policies, and so on.

Addressing a decision maker who has no goals of his own – a naïve benevolent despot who asks about the social good – is, of course, a fiction. The question about the social good squarely belongs into ethics, but according to the standard view about the nature of values it has no answer.

Ethics is concerned with the rational discussion of normative statements (see also appendix B). This discussion is quite different from a scientific discourse. Science as an institution has a purpose: the pursuit of knowledge. Knowledge implies truth: if a scientists claims that he knows that A, where A is a statement, this implies that the statement A is true. Normative statements, however, are neither true nor false; the pursuit of knowledge in ethics is restricted to knowledge of logical relations.

When science as an institution works as it should, the acceptance or rejection of theories or observations statements is based, by and large, on a technology for the pursuit of knowledge. The suitability of this technology is under discussion, but this discussion is concerned with facts, not with values. Thus, it is usually not possible in scientific competition just to reject theories or observation statements one dislikes, at least if one wants to be a successful scientist. Of course, scientific competition works not perfectly. But by and large there is a strong pressure, even in economics, to accept the results of methodologically solid research even if one dislikes them. The rise of behavioral economics against the visceral dislike of many neoclassical economists is a nice illustration.

In ethics, on the other hand, it is perfectly possible to reject normative statements just because one does not like them. In a rational discussion, there is pressure to be consistent, but mere consistency always allows the rejection of specific statements if one is prepared to bear the costs of adjusting other convictions. For this reason, it makes no sense to search for 'the answer' to moral questions like 'What is the social good, all things considered?'

But applied economists need not be specialists for ethics because they need not discuss anybody's normative convictions. They need not at all be concerned with determining or defining the social good or social welfare. Instead, they can just tell people

about the possibilities for reaching their own goals, which may or may not involve an idea about the social good. In the academic context, where they do not act as consultants to specific persons whom they can ask for their goals, they can do their job by listening to policy discussion or doing research on people's preferences. They can analyze policies with respect to consequences people seem to care about. There is no shortage of projects an applied economist can take on without ever doing ethics.

Of course, ethics is a legitimate field, and everybody may contribute to it, including applied economists. Applied economists may even profit from a knowledge of ethics (or other areas of philosophy) – for instance, by developing a better understanding of other people's normative convictions. But they need not do ethics in order to do their job as applied economists.

The above is, of course, a modern re-statement of Weber's (1904) view that social science should be value-free. Economists had for a long time been accepting this view in the version of Robbins (1935). According to this view, 'normative economics' would not exist or be part of ethics, a field that is very different from economics. This consensus seems to have broken down. Dasgupta (2009, p. 583), for instance, holds that Robbins' position – Weber is rarely mentioned in modern economics – is irrelevant to modern economics.

Weber did not argue that economists should have no normative convictions of their own or that these normative convictions should be irrelevant for their work. Quite to the contrary. When he argued that science should be value free, he was concerned with scientists' professional code. He argued in favor of a certain normative position. Rational discussion of normative convictions is possible (even beyond the limits envisaged by Weber – cf. Hans Albert 1968/1985, pp. 81-88), and it is therefore possible to have a rational discussion about scientists' professional moral codes.

When discussing their professional code, economists are actually involved in a philosophical discussion about moral standards and may profit from knowledge about ethics as a philosophical discipline. However, in most situations, it is not difficult to behave according to widely accepted moral standards that, typically, are also part of accepted professional codes. Almost everybody agrees, without any course in ethics, that, under normal circumstances, one should not help others to cheat people, or that one should not help dictators to suppress the opposition.

Ethics, then, is not irrelevant for applied economists, but it is quite unlikely that its fine points will often become important. As long as they stay within certain limits, applied economists should just ask their clients what they want and, if they can, tell them how to get it. This is what everybody expects from an honest advisor. As professors at public universities, applied economists have an obligation to the public, meaning that they should educate people about the consequences of economic policies, about the possibilities of reaching goals that are publicly discussed, etc. However, they have no obligation to take on clients they consider as unsavory, or to enlighten the public about how to reach goals they consider immoral. It is quite unlikely, then, that applied economists in academia confront difficult moral questions in their research.

4.3. The Behavioral Challenge to Applied Economics

Let us assume that applied economists wish to follow the professional code just outlined. What, then, is the challenge of behavioral economics from this point of view? It seems to me that this challenge looks completely different from what it looked before. Economists' traditional concern with efficiency is not a necessary consequence of addressing their clients. The concern with efficiency is often justified as a consequence of taking a 'neutral position' and taking the goals of all potential addressees into consideration. However, this is a proposal for a professional code – a professional code that violates the requirement of value freedom. From the perspective of value freedom, it is not economists' job to weight the goals of their clients in any way, 'neutral' or not. It is actually quite surprising that many economists who, by and large, tend to reject paternalism think that they should adjudicate between the interests of different people.[7]

As already mentioned, there is a technological aspect to efficiency considerations that can be used for value-free advice: if inefficiencies exist, there is room for an agreement about how to change the situation. However, even if the traditional notion of efficiency or Pareto improvement is inapplicable for theoretical or practical reasons, behavioral economists may still be able to point out possible agreements.

Experimental economists, for instance, can consider bargaining and draw lessons about how to make a deal. They can address just one side, as when prospect theory is turned into an applied theory of salesmanship. Alternatively, they could enlighten buyers or they could address both sides of a bargain. Efficiency might be ill-defined but a deal is still a deal. And, obviously, making a deal is an important goal of many people in many situations, not least politics.

In cases of conflict between moral preferences and material wellbeing, economists can point out the two trade-offs, the tension between the two meanings of efficiency, and the distributional consequences of different policies. Their addressees – politicians or voters – can make up their own minds on the question of whether they want to promote policies that take spite into account. Economists have no call to make their choices for them.

In cases of hyperbolic discounting, economists are free to give advice on how to reach long-term goals or short-term goals, depending on what they are asked to do. Alternatively, they can explain the problem of sticking to a plan. Asking their clients will most likely resolve the issue. For instance, people who want to quit smoking usually have this goal even when they lit a cigarette. The point is that they do not want to quit

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[7] Gul and Pesendorfer (2008) are aware of this inconsistency. They rightly argue that positive economics neither implies nor requires a definition of the social good. However, their conception of 'mindless economics' is irrelevant for this result since even 'mindful economics' is a positive science, and their view of normative economics and economists as advisors is the same view that is criticized here. Because they re-define positive economics such that it is unable to deal with issues like individual happiness, they actually eliminate its potential for criticizing policies aiming at happiness: The very reasonable point that people are not always interested in happiness alone cannot be made by 'mindless' economists. As a criticism of happiness politics and paternalism, mindless economics is just pointless. See also appendix A of the present paper.

just then. Even while smoking, they are usually prepared to discuss how to quit in the long run. Thus, it is, according to my experience, just not true that health advisors encounter, in one body, two different persons who want different advice and who take turns in controlling their common body depending on this body's blood levels of nicotine. Because of the possible difference between long-term and short-term goals, utility maximization may be ill-defined. But smokers who want to quit do not ask advisors how to maximize their utility. They ask how they might manage to quit.

It is also completely within the limits of applied scientists' professional codes to advise people on how to help other people, even if the helpers take a paternalistic stance. Thus, to invoke Thaler and Sunstein's (2008, pp. 1-2) introductory example, if the manager of a school cafeteria wants to induce her customers to avoid sweets but does not want to restrict their menu of choice, she might turn to a behavioral economist. The behavioral economists might tell her that a 'nudge' like putting the sweets out of sight contributes to the aim. This advice is not immoral according to economists' professional code, even if it goes against the grain for some libertarian normative economists (who are, of course, free not to take on paternalistic clients).

In all these cases, applied economists can make technological use of the insights from behavioral economics. They can also criticize the advice of others by pointing out, for instance, that the goals or constraints of the addressees of the advice have not properly been taken into account. Solving ethical puzzles is not required for this job.

5. Conclusion

According to the proponents of normative economics, the main tradition in their field is neoclassical welfare economics (NWE). The behavioral challenge to normative economics, then, is based on the rejection of neoclassical core assumptions in behavioral economics. If individuals are not materialistic egoists, NWE becomes so complicated that it may be inapplicable in practice; moreover, the Pareto criterion looks unattractive if preferences reflect negative attitudes like envy or spite. If choices are not based on a stable and exogenous complete preference ordering, NWE has to be replaced by something else because the Pareto criterion cannot be applied any longer. And if people make mistakes, some version of paternalism seems to be justified—a position which is often viewed as inconsistent with NWE.

However, a closer look reveals that normative economics does not exist. A small part of it belongs to ethics, not economics – that is, to philosophy, not to science. The main part is more properly called 'applied economics'. Applied sciences are not normative but technological: they inform about how to achieve certain goals or about the relations between goals. This obviously holds for neoclassical welfare economics. The 'behavioral challenge to normative economics' is, actually, a challenge to applied economics.

What, then, is the behavioral challenge to applied economics? In order to come up with a satisfactory answer to this challenge, economists have to restate the questions they traditionally ask. As often emphasized, they must think about the addressees of their advice. But this is not enough. Honest advice informs people about how to reach

their goals. The position taken by NWE, in contrast, is the position not of an honest advisor but the position of an adjudicator between conflicting goals of different people.

A convincing answer to the behavioral challenge will not be that efficiency must be re-defined or that neoclassical welfare functions must be replaced by new and more complicated welfare functions. As Hans Albert has been arguing for a long time (see, e.g., Hans Albert 1979/1999), economists should rather investigate those performance characteristics of alternative institutional arrangements that are relevant according to different value systems. Of course, efficiency can be such a performance characteristic. However, if, as it seems to be the case, efficiency is, for practical or theoretical reasons, not achievable or not even definable, then there are many other performance characteristics that economists can, and actually do, consider.

Depending on the clients, among the goals are the redistribution of income and wealth, financial and monetary stability, full employment, improving sanitary conditions, forging agreements and compromises, improving the quality of goods and services in the eyes of consumers, getting a bigger share of the market, raising profits, reducing costs, and so on. From the clients' perspective, it is neither necessary nor desirable that economists, possibly supported by philosophers, pretend to make the necessary choices for them. This, in fact, is a form of paternalism that economists should have rejected a long time ago, when they accepted value freedom as an important norm in their professional code of conduct.

Appendix A: The Case Against Mindless Economics

In a widely cited paper, Gul and Pesendorfer (2008, p. 6, p. 27) argue that economists do not need answers to 'difficult philosophical questions" – but only as long as they restrict themselves to positive economics and do not act as advisors or advocates of certain causes. The position taken in the present paper is stronger: economists as advisors can also avoid these philosophical questions. However, the present paper is nevertheless opposed to the views of Gul and Pesendorfer. For instance, it is one of its main points that economists as advisors can and should act in a manner that is completely different from the role of advocates of a cause.

In this paper, I assume that preferences and beliefs are internal states of individuals – more exactly, mental states accompanying, and corresponding to, brain states. Brain states may be the real causes of behavior while mental states are just epiphenomena but this does not matter for present purposes. This view builds on folk psychology. It allows us to talk about the human mind using terms like preferences, beliefs, emotions and motivations, where these terms have, by and large, meanings that are not too far removed from their meanings in everyday speech. This is the point of view of modern cognitive psychology and, I would argue, of many economists.

I am not concerned with the question of how we can learn about the human mind. However, my answer to this question would be the same as the answer to the question of how we can learn about things like gravity or subatomic particles: we state theories that seem to explain what we observe and then test them. In principle, nothing speaks

against using neuroscience to test economic theories about people's preferences and beliefs. Whether this is possible depends on whether we have well-corroborated theories linking people's preferences and beliefs to observable events in the brain. For the arguments of this paper, however, it does not matter whether this specific line of testing economic theories is available today or not. There is certainly much room for disagreement on this topic.

Gul and Pesendorfer (2008), however, take a more radical position. They argue in favor of 'mindless economics'. While they allow theorizing about the human mind, whether informed by folk psychology or scientific psychology, as a heuristic device in economics, the do not allow the mind to appear in economic theories. Gul and Pesendorfer extend the traditional revealed-preference (RP) approach to all of economics, including behavioral economics, and contrast it with a different approach, 'psychology and economics', which they dub 'neuroeconomics'. However, I think that their term 'mindless economics' for their own approach is particularly apt; therefore, I refer to the other side as 'mindful economics'.

The traditional RP approach considers statements about preferences not as referring to some internal states that cause behavior but as referring solely to the choices themselves. Accordingly, saying that Adam strictly prefers A to B is the same as saying that Adam would, given the opportunity, choose A over B (cf. also Gul and Pesendorfer 2008, p. 7). Hence, talk about interests of agents and of how agents perceive their interests (cf., e.g., Gul and Pesendorfer 2008, p. 25) falls into one of two categories: (i) it does not belong to economics as a science and is just a heuristic device; or (ii) it must be re-interpreted in terms of the RP approach, which typically turns the relevant statements into tautologies (e.g., 'people choose what they prefer' becomes 'people choose what they choose'). Gul and Pesendorfer often fail to say which alternative applies.

According to Gul and Pesendorfer (2008, pp. 7-8, p. 22), economists may use any kind of mindful economics, psychology or folk psychology as a heuristic to come up with a model containing free parameters. They then should determine the values of these free parameters on the basis of choice data, and use the models to predict future choices. The content of economic theories is the set of its testable implications about connections between economic variables like prices and quantities. Everything else is irrelevant; this holds specifically for the modeling of individual decision making and any terms referring to the human mind (Gul and Pesendorfer 2008, p. 22).

Although the RP approach originates from neoclassical economics, Gul and Pesendorfer want to extend it, in this form, to behavioral economics as well. This is mindless economics. Obviously, mindless economics cannot provide any basis for policies that aim at furthering people's happiness. It even makes it impossible for us to talk scientifically about people's interests, preferences or beliefs in the usual sense of these words.

In mindless economics, it is true, as a matter of definition, that people choose what they prefer. Welfare improvements are defined as usual in terms of preferences. However, one could also skip over the definition of preference and define welfare improvements directly in terms of choices: Adam is better off with A than with B (or worse off

with B instead of A) iff, given the opportunity, he would choose A over B (cf., e.g., Gul and Pesendorfer 2008, p. 24). This definition can then be used to define efficiency in the usual way: A situation A is efficient if it is not possible to move to a situation B such that at least one person is better off and no person is worse off.

'Better off' and 'worse off' have, of course, not the meaning they have in everyday language. We can again eliminate these terms and define efficiency directly in terms of choices: situation A is efficient if it is not possible to move to a situation B such that at least one person would, given the opportunity, choose B over A and no person, given the opportunity, would choose A over B.

There is no obvious reason why anybody would be interested in efficiency defined in this way if choices were no indication of preferences in the sense of mindful economics. Gul and Pesendorfer are therefore under pressure to come up with a reason for mindless economists to be interested in efficiency. Their solution (Gul and Pesendorfer 2008, pp. 24-25): They argue that efficiency means stability, and that positive economics is concerned with the stability of situations or institutions. If situations are efficient, this explains why they are stable, and if they are inefficient, we should ask ourselves how they could be stable, which would then lead us to revise our models.

Obviously, if we should revise every model that describes a stable situation as inefficient, we introduce, by way of methodological prescription, a dogma: only efficient situations can be stable. It is true that some institutional economists try to explain the stability or instability of institutions in terms of efficiency. However, in the light of economic theory, this is not convincing as a general methodological strategy. Neither the theory of competitive markets nor game theory identifies equilibria with efficient states. A large part of economics is concerned with inefficient equilibria. There is no general presumption in economic theory that inefficient states must vanish.

Let me illustrate the last point. According to mindless economics, a situation A is inefficient if it is possible to move to a situation B such that at least one person would, given the opportunity, choose B over A and no person, given the opportunity, would choose A over B. Apply this to a prisoners' dilemma (PD). In the PD, equilibrium is situation A (inefficient) and mutual cooperation is situation B (efficient). Given the opportunity, each player would choose situation B over situation A. But this does not mean at all that A is instable in some sense.

The idea that inefficient situations cannot persist in history (which, from a game-theoretic perspective, is just a very large game) is nothing but a metaphysical speculation. Using this speculation as a heuristic device in the search for explanations might nevertheless be a good idea. As Gul and Pesendorfer (2008, p. 25) argue:

> "There is no reason for economic agents to gravitate toward policies and institutions that yield higher welfare if the underlying notion of welfare does not reflect the interests of agents as the agents themselves perceive their interests."

Quite so. But this is a reasonable argument only in the context of mindful economics. In mindless economics, agents' reasons and perceptions of their interests have no place, and 'interests' and 'welfare' is just another word for 'preferences' and can be replaced by 'choices' in the way indicated above.

What is presented as an argument, then, is no argument at all if we take Gul and Pesendorfer at their word. It is part of a heuristic that has to be discarded once an economic model has been jotted down. If it were a proper argument, we might inquire whether it is true that agents have interests which they can perceive and so on. Mindful economists and psychologists might, then, come up with theoretical and empirical criticism of this argument (as, actually, they do). But Gul and Pesendorfer want to pre-empt such a criticism. Their strategy, however, undermines their own argumentation; they have defined away any basis for using the above statement as an argument in economics.

Despite the absence of a scientific (and, hence, criticizable) argument for the alleged instability of inefficient states, Gul and Pesendorfer turn this hypothesis into a dogma by building it into the foundation of economic methodology. Indeed, they seem to define economics by this methodology (Gul and Pesendorfer 2008, p. 13). This is a good example of what Hans Albert has called an 'immunization strategy': Economics is defined by a methodology that requires economists to ignore certain phenomena, questions and arguments. Criticism can be ruled out by dismissing the critics as non-economists.[8]

In a similar way, theologians have been trying for a long time to protect their theories against criticism from the natural sciences (cf. also Hans Albert 1968/1985, ch. 5). The natural sciences, on the other hand, seem to proceed in a very different way. Not least, they progress by proposing hypotheses that connect different fields and yield new predictions. If these hypotheses survive severe testing, they can be used to criticize old theories, either because there is a direct clash between old theories and new successful hypotheses or because the new hypotheses imply that new kinds of data become relevant to, and speak against, the old theories. As Gul and Pesendorfer's analysis shows, their mindful opponents argue exactly along these lines. This does not mean that their hypotheses are true. But resorting to immunizations strategies in order to evade their criticism is not the way to progress.

Gul and Pesendorfer relegate economic advice to normative economics and assume that, in this field, mindful economics becomes relevant after all, and with it the difficult philosophical and moral questions that positive economics avoids. In this paper, I argue instead that (i) economic advice is within the purview of positive economics, (ii) mindful economics is a proper part of positive economics, and, nevertheless, (iii) economists can avoid the said difficult philosophical and moral questions. In this appendix, I have, moreover, argued that (iv) Gul and Pesendorfer's conception of mindless economics should be rejected.

According to Gul and Pesendorfer (2008, p. 8), agents' choices may not maximize happiness but, instead, reflect a sense of duty or the response to some impulse, and economics "takes no position on the question of which of those objectives the agent should pursue". I agree. For this reason, economists as advisors are not bound to advise their

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[8] See Hans Albert (1968/1985) for a thorough discussion of immunization strategies in various fields and contexts.

clients only about the pursuit of happiness. They should take the actual goals of their clients into account. And they can focus on other aspects of policies than just the effects on people's happiness. But this point of view presupposes that we can use positive mindful economics in order to criticize the political propaganda of happiness theorists. Gul and Pesendorfer's mindless economics has nothing to contribute to such a criticism. All they can say is that happiness policy is not based on economics as they define it.

Appendix B: Normative Statements and How to Discuss Them

Normative convictions are expressed in normative statements. Simple normative statements are value judgments in the narrow sense ('democracy is good'), general norms ('you should not kill'), recommendations, and so on. In contrast to positive statements, these statements are not about facts (not factual) and are, therefore, neither true nor false. This, at least, is the position of non-cognitivism in ethics, which is also the position taken by most economists and the position taken in this paper.[9]

More complicated statements ('Adam is obliged to help Eve') combine simple normative statements ('Adam should help Eve') with implicit references to facts, namely, the circumstances that, according to the speaker's value judgments, lead to Adam's obligation. For instance, the speaker may have the normative conviction that husbands should help their wifes and the positive conviction that Adam is Eve's husband. The factual statements implied by these more complicated statements can be true or false; in this sense, somebody sharing the speaker's value judgments might say that a specific complicated normative statement is true or false (because, e.g., Adam is or is not Eve's husband, and no other accepted reason for an obligation exists). However, even in these more complicated cases, the normative component is neither true nor false.

The logical character of normative statements is highly contentious in philosophy. Part of the problem is that people express many different things when they express their normative convictions by uttering a normative statement. If somebody says, as an expression of his own convictions, 'Adam is obliged to help Eve', this usually means that he prefers Adam helping Eve to not helping her, at least under normal circumstances. It may also mean that he prefers, and possibly expects, others to have the same preference. The statement may imply that he thinks that Adam's obligation can be justified in terms of more basic normative principles; it almost certainly means that he believes certain circumstances prevail that lead to Adam's obligation, like Adam being Eve's husband. Moreover, it may express the false view that it is an objective truth – in the same sense that it may be objectively true that Adam is Eve's husband – that Adam ought to help Eve.

Normative language is complicated because it is used to express all these very different things. If this analysis is correct, the meaning of 'Adam is obliged to help Eve' cannot be determined independently from the circumstances under which it is uttered. This

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[9] On non-cognitivism and the meaning and rational discussion of normative statements, see Hans Albert (2000, pp. 44-46) and Max Albert and Kliemt (2011), from where most of this appendix is taken.

is obvious for the implicit references to facts, which require knowledge about further normative convictions of the speaker and, possibly, the moral institutions of the speaker's society. Moreover, without knowing the speaker (and whether he meant the statement as expression of his own normative convictions), it is unclear whose moral preferences are expressed.

From a logical point of view, then, we must analyze the normative content of a isolated statement like 'Adam is obliged to help Eve' as 'x prefers Adam helping Eve to Adam not helping Eve' and so on. This is a statement form, not a statement; it turns into a true or false positive statement if the variable x is replaced by a name. Statement forms of this kind can easily be handled. While the statement forms by themselves are neither true nor false, we can nevertheless analyze logically relations like logical inconsistency or logical consequence between them. Such a relation holds between two statement forms if it holds for all pairs of statements resulting from uniform substitution of variables by constants.[10]

A rational discussion of a set of normative statements requires, first of all, an analysis of the meaning of these statements, which must make use of the context in which they are uttered. It then proceeds in the usual way of any rational discussion, by criticism and counter-criticism. Criticism either points out logical inconsistencies among them or factual implications that seem to be false.

However, in contrast to rational discussions about facts, there are no criteria according to which a participant of the discussion is obliged to accept a specific normative statement. While there are accepted scientific methodologies for establishing facts, so that not any consistent set of factual statements can be maintained, no such criteria exist in ethics. It is perfectly possible that all participants in in a rational discussion about normative statements are consistent and agree about all the facts but still disagree with respect to their normative convictions.[11]

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[10] I know of no source for the idea that the normative content of normative statements should in general be analyzed as a set of statement forms, although this is, of course, implied by the traditional idea that normative convictions are a special case of preferences.

[11] This is the premise of Moore's 'open question argument'; cf. Mackie (1977, p. 51, p. 61-62).

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References

Albert, Hans (1968/1985), Traktat über kritische Vernunft, Tübingen 1968, transl. as Treatise on Critical Reason, Princeton.

Albert, Hans (1979/1999), The Economic Tradition, in: Karl Brunner (ed.), Economics and Social Institutions, Boston etc., revised and repr. in: Hans Albert, Between Social Science, Religion and Politics. Essays in Critical Rationalism (1999), Amsterdam and Atlanta, pp. 91-114.

Albert, Hans (1987), Kritik der reinen Erkenntnislehre, Tübingen.

Albert, Hans (2000), Kritischer Rationalismus, Tübingen.

Albert, Max (2013), From unrealistic assumptions to economic explanations: Robustness analysis from a deductivist point of view, MAGKS Joint Discussion Paper Series in Economics 2013-52, Justus-Liebig-Universität Giessen.

Albert, Max and Hartmut Kliemt (2011), Gerechtigkeitstheorien in der Ökonomik: Ausweg oder Irrweg?, in: Wolfgang Franz, Hans Jürgen Ramser and Manfred Stadler (Hg.), Umverteilung und soziale Gerechtigkeit. Wirtschaftswissenschaftliches Seminar Ottobeuren, Vol. 40, Tübingen, pp. 63-80.

Arrow, Kenneth J. (1963), Social Choice and Individual Values, 2nd ed., New Haven and London.

Bernheim, Douglas B. and Antonio Rangel (2008), Choice-theoretic foundations for behavioral welfare economics, in: Caplin and Schotter (eds.) (2008), pp. 155-192.

Buchanan, James M. (1964), What should economists do?, repr. in: Geoffrey Brennan, Hartmut Kliemt and Robert Tollison (eds.), Collected Works, Vol. 1, pp. 28-42.

Caplin, Andrew and Andrew Schotter (eds.) (2008), The Foundations of Positive and Normative Economics: A Handbook, Oxford.

Caplin, Andrew and Andrew Schotter (2008a), Volume introduction, in: Caplin and Schotter (eds.) (2008), pp. xv-xxii.

Dasgupta, Partha (2009), Facts and values in modern economics, in: Harold Kincaid and Don Ross (eds.), The Oxford Handbook of Philosophy of Economics, Oxford etc., pp. 580-640.

Gul, Faruk and Wolfgang Pesendorfer (2008), The case for mindless economics, in: Caplin and Schotter (eds.) (2008), pp. 3-39.

Hamilton, William D. (1970), Selfish and spiteful behaviour in an evolutionary model, in: Nature 228, pp. 1218–1220.

Hands, D. Wade (2012), The positive-normative dichotomy and economics, in: Uskali Mäki (ed.), Handbook of the Philosophy of Science, Vol. 13: Philosophy of Economics, Amsterdam etc., pp. 219-239.

Keynes, John N. (1890/1973), The Scope and Method of Political Economy, 4th ed. 1917, repr. by Augustus M. Kelley, Clifton 1973.

Loewenstein, George and Emily Haisley (2008), The economist as therapist: methodological ramifications of 'light' paternalism, in: Caplin and Schotter (eds.) (2008), pp. 201-245.

Mackie, John L. (1977), Ethics: Inventing Right and Wrong, London etc.

Robbins, Lionel (1935), An Essay on the Nature and Significance of Economic Science, 2nd ed., London.

Saijo, Tatsuyoshi and Hideki Nakamura (1995), The "spite" dilemma in voluntary contribution mechanism experiments, in: Journal of Conflict Resolution 39, pp. 535-560.

Sugden, Robert (2008), Why incoherent preferences do not justify paternalism, in: Constitutional Political Economy 19, pp. 226-248.

Sugden, Robert (2011), The behavioural economist and the social planner: to whom should behavioural welfare economics be addressed?, Papers on Economics and Evolution #1121, Jena: Max Planck Institute of Economics.

Thaler, Richard H. and Cass R. Sunstein (2008), Nudge: Improving Decisions About Health, Wealth, and Happiness, New Haven.

Vanberg, Viktor (2006), Democracy, citizen sovereignty and constitutional economics, Freiburg Discussion Papers on Constitutional Economics 06/2, repr. in: José Casas Pardo and Pedro Schwartz (eds.), Public Choice and the Challenges of Democracy (2007), Cheltenham, pp. 101-120.

von Weizsäcker, Carl Christian (2005), The welfare economics of adaptive preferences, Preprints of the Max Planck Institute for Research on Collective Goods, No. 2005,11, Bonn.

Weber, Max (1904), Die 'Objektivität' sozialwissenschaftlicher und sozialpolitischer Erkenntnis, in: Archiv für Sozialwissenschaft und Sozialpolitik 19, pp. 22-87.