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Evolutionary Economics and Moral Relativism - Some Thoughts

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Abstract

Doubts about the decidability of moral questions have often been used as an excuse for economists to eschew any normative propositions. Evolutionary economics, still lacking a well-developed normative branch, gives rise to a form of descriptive moral relativism. This paper wants to explore the consequences of adopting a form of meta-ethical and normative moral relativism as well. It develops a normative position called 'naturalistic relativism', which is a naturalistically reconstructed neo-pragmatist form of relativism. The paper also gives an argument why this position seems to be the adequate normative correlate for evolutionary economics.

Keywords: evolutionary economics, moral relativism, sensory utilitarianism, continuity hypothesis, naturalistic relativism

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1 Introduction

Traditionally, economists have overtly been very reluctant about making normative assumptions concerning human values. Inspired by physical metaphors (Mirowski, 1988) and informed about 'Hume's Law'¹, economists' dogmatic stance always consisted of describing their field as a hard (mathematical) science which has to do with facts but leaves value judgments to other fields such as ethics and philosophy. Consider for example Robbins, who has set the tone for positivist economics:

"Economics deals with ascertainable facts; ethics with valuations and obligations. The two fields of inquiry are not on the same plane of discourse." (Robbins, 1935, p.148 & Ch.VI *passim*)

This avoidance of value judgments does not only comprise economic theorizing but economic policy-making as well (cf. Witt, 2003a). Under the label of 'instrumentalism', value judgments were left to others, whereas economists contented themselves with putting forward hypothetical scenarios, given one would assume such and such policy goals. For example, economists would ask themselves how policy advice could look like if one wanted to achieve equal distributions of national income. To decide, however, if it would be desirable to have such a distribution was left to others.

This refusal to deal with normative questions of value seems to reflect a deep-seated agnosticism, if not skepticism on the part of the economists concerning the decidability of moral questions. Most of the practitioners seem to imply that such questions are not decidable, thus implicitly endorsing one form or another of moral relativism, if not outright skepticism.

In the present paper we want to explore the question of the inevitability of moral relativism from the point of view of evolutionary economics. Though having been established as a distinct research field (cf. Witt, 2003a), evolutionary economics is still lacking a well-defined normative branch. The question to confront in this paper is the following: Given the positive insights of evolutionary economics, do we have to arrive at a position of normative moral relativism, or even worse, at skepticism? And if so, what are the consequences to take after the fact. We will show that although evolutionary economics prompts us to accept a form of (descriptive) moral relativism, this does in no way imply us to adopt such a strong form of relativism or skepticism as economists usually do. To make that point, we proceed as follows. In the second section, we give a short account of different forms of relativism, especially moral relativism, to have a clear understanding of those notions. In section three, the evolutionary framework of 'sensory utilitarianism' and the 'continuity hypothesis' are explained in order to be able to see what kind of consequences for human morality can be expected. Section four then tackles the question of relativism from an explicitly neo-pragmatist perspective. To highlight this point of view, the

¹Hume's Law pertains to the categorical difference between factual and evaluative statements (see Hume, 1740, p.469).

famous Putnam-Rorty-debate on relativism is briefly sketched. In section five, the implications of that debate are considered for evolutionary economics and then, a new normative position labeled 'naturalistic relativism' is suggested to be embraced by evolutionary economists. Section six concludes.

2 Moral Relativism

What do we mean by the notion 'relativism'? This question seems to be easily answerable on the surface, but a lot of confusion arises from the careless use this notion is often put to. To begin with, relativism is not a single theory but a family of theories or views concerning widely different things such as relativism about truth, moral principles, or justificational standards, just to name a few.² Generally, a relativist account has the following structure:

$$(R, Relativism) X$$
 is relative to Y .

Here, X can be any of the above mentioned examples. Y denotes the factor to which X is relative to, e.g. culture, language, cognitive capacities, human biological makeup or conceptual frameworks. The notion of 'conceptual frameworks' is deliberately vague and can be used as a placeholder because in the end, conceptual frameworks could be reducible to cultural differences, cognitive capacities etc. Coming back to the point made in the introduction, we can thus define 'moral relativism' as

 $(R_M, Moral\ Relativism)$ Moral beliefs and preferences are relative to culture.

 R_M can be understood in three distinct ways, viz. descriptively, meta-ethically and normatively (Gowans, 2004b). Much of the confusion in debates about moral relativism stems from being ignorant of these three uses that can be made of the term. In the descriptive sense, moral relativism is an *empirical* claim about moral values. It refers to the empirical observation that different cultures have different value systems and different moral beliefs and preferences that are or can be in conflict with each other. It starts from the *prima facie* very plausible observation that there are moral disagreements which seem to be fundamentally unresolvable in a rational way (Gowans, 2004a). In this descriptive sense we will use cultural and moral relativism synonymously. For example, suppose an anthropologist has comparatively studied Western and Asian cultures. Having collected a lot of empirical data on important cultural values, he can make the descriptive claim that in Western culture, individualism is a prominently held value whereas in Japanese culture, the collective has a more important position. He thus makes a

²We will not go into the details of most views here. Suffice to say that some variants of relativism are closely linked but with others, one can easily be relativist about one thing and absolutist about the other. It is thus important to be very concise about which area one holds relativistic beliefs. For a summary on relativism cf. Swoyer (1982, 2003).

claim of descriptive moral (cultural) relativism when stating that the value of individualism differs in importance in those cultures.

Consider now the second, meta-ethical meaning of R_M . In this sense, moral relativism is a position that claims that there is no absolute (objective) standard of values to judge whether one moral belief or preference is right or better than another. It can also denote the contention that there is no objective procedure to solve moral dilemmas or conflicts, e.g. that there are no criteria to judge about conflicting values. Meta-ethical moral relativism is based on descriptive moral relativism (this is especially the case for moral relativism's two most prominent defenders, cf. Harman, 1996; Wong, 1984). Different cultures might have evolved different value systems and if those value systems come into conflict, according to meta-ethical R_M , it is not decidable which side is right. Were the empirical claim about descriptive R_M not true, i.e. were there no moral disagreements, meta-ethical R_M were a not very plausible option. Note that meta-ethical moral relativism is opposed by moral objectivism (i.e. the idea that there are objective moral values that always have normative force).

The third possible meaning of R_M is a normative one. Given that one endorses the other two forms, normative moral relativism would be an ethical position prescribing how to deal with other moral value systems in the case of conflict. For example, it could give an argument for tolerance concerning other moralities with which one disagrees or it could argue that there should be a dialogue between proponents of different moralities to attempt to attain a convergence of value systems. Another form could be one of moral imperialism, i.e. the prescription to educate other cultures to the moral value system that one endorses. As Gowans (2004b) rightly points out, this normative meaning of moral relativism should be understood as a normative correlate that follows from meta-ethical moral relativism.

An important dimension of a relativist account (in any of the three meanings) is the strength of the position. Depending on how much influence Y has in the determination of X, one can talk about strong versions of relativism or weaker ones. For example, a strong descriptive moral relativism would claim that there is no framework-independent morality at all, whereas a weaker form could argue for example that some moral values are indeed framework-independent, while others are not. A milder form of meta-ethical moral relativism could argue as well that there might exist some procedures for moral conflict resolution that are applicable in some cases.

Note, however, that the strong versions of relativism are mostly displayed very prominently for rhetoric effects since these are the forms of relativism which are most likely to be self-refuting or otherwise easily disposable of. Consider for example the (normative) claim

 $(R_T, Relativism \ about \ truth)$ All truth is relative to conceptual frameworks.

Obviously, this normative claim is either itself only relative to the speaker's framework, so that it does not have to have any consequences for us (being possibly in another framework), or its proponent commits the 'self-excepting fallacy' (Mandelbaum, 1962) by claiming absolute truth

for R_T .³

We now want to put forward one last characteristic for meta-ethical relativist accounts. This has been called the 'Janus-face' of relativism (Swoyer, 2003). Each species of relativism has two sides: On the one hand, the relativist has to defend claims that there are no *objective* facts, beliefs, values (etc.) independent of a framework or culture. On the other hand, he wants to argue that once relativized to a conceptual framework or culture, there are facts, beliefs or values (etc.) that are *objective* in that framework. For example, a moral relativist could well argue that the moral values in his framework have normative force and are in that respect objective to all people within that framework. It is only in different frameworks, where they might have no normative force. Note again that weak relativist positions do not argue that framework-dependence of *X* leads to "anything goes" or prompts moral skepticism in the sense that there can be no moral knowledge since values change arbitrarily and capriciously: Moral relativism thus asserts that moral values have normative force relative to cultures whereas moral skepticism asserts that moral values have no normative force and no truth value whatsoever.

In many fields of science, relativism has become an attractive position due to the complexities of theorizing and contrary evidence (cf. e.g. Kuhn, 1993). For example, relativist theories of truth have been adopted readily when facing such justificatory problems as the so called "Münchhausen-Trilemma" (this term has been coined by Albert, 1991, pp.13-5). But due to the fact that relativist accounts are often confounded or strong straw man versions of relativism are presented by its opponents, there is a huge opposition to relativist claims. Most opponents of relativism reject it on the grounds of the alleged "anything goes"-implications thus confounding relativism with skepticism (see e.g. Popper, 1966, p.369). While we absolutely (no pun intended) agree with the criticism concerning most strong versions of relativism, the remainder of the paper will sketch out how a weaker form of descriptive as well as meta-ethical and normative moral relativism can be embraced by evolutionary economics. Before doing so, we will first give an account of the economic theory of sensory utilitarianism and the form of descriptive cultural relativism it entails.

 $^{^3}$ This argument has already been put forward in Plato's Theatetus (§§ 161-2), cf. also Binder (2004, pp.76-7).

 $^{^4}$ It is not possible to give a fundamental justification for a proposition P. With reference to the justification of P, three options exist according to the Trilemma: On the one hand, one could justify P with a justification J. But what justifies J? A regressus ad infinitum results. On the other hand, one could justify P with reference to itself (circulos virtuosis). On the third hand, the justificationary process is terminated at a certain point with reference to intuition or self-evidence. Clearly, none of the options is very satisfactory from a philosophical point of view.

3 Sensory Utilitarianism and the Continuity Hypothesis

Dissatisfied with the standard paradigm of neoclassical economics, evolutionary economics has established itself as a distinct heterodox research field. Contrary to the mostly static approach of contemporary economic theorizing, evolutionary economics is decidedly dynamic, or more precisely: evolutionary⁵ (inspired by Darwinian thoughts).

'Sensory Utilitarianism' is the name of an evolutionary economic position developed by Jeremy Bentham (Bentham, 1789) and revived by Ulrich Witt in a series of papers (cf. Witt, 2000, 2001, 2005). Witt wants to counter the poverty of contemporary utilitarianism. Today, utilitarianism seems to be a minority position in comparison with its alternatives. The indigence of the utilitarian position, so the argument, comes from the "hollowness of utility" (Samuelson, 1947, p.91) caused by the reduction of the original Benthamite framework of a hedonistic utilitarian calculus (Bentham, 1789), based on sensory underpinnings, to an abstract homogeneous index number. This move can be seen to originate with Jevons (1871), who aimed at a mathematical description of utility theory inspired by 19th century physics (Mirowski, 1988, Ch.1). In the process of increasing the theory's "mathematical fitness" (Warke, 2000), severe modifications have led to a decrease in its material content, culminating (in positivist times) in the theory of revealed preference and the formal axioms of preference theory, which practically leave utility theory without any similarities to empirical reality (Witt, 1991; Gowdy, 2004).⁶

Sensory utilitarianism revokes Jevons' modifications and provides utility theory and preference theory with sound behavioral foundations. Such a "naturalization" of utilitarianism, i.e. reconstructing utilitarianism with methodological naturalism, provides a sounder basis for economic theory and allows for material conjectures about human economic behavior, which do not contradict empirical findings of the behavioral sciences. It wants to answer such questions as: What is utility? Where does it come from? Does it change over time etc. Especially for normative economics, such a basis can serve as a more solid foundation for value judgments and policy advice (see section five).

The main characteristic of sensory utilitarianism is the return to the hedonic qualities of utility: We experience utility as a sensory episode of pleasurable perceptions. In detail, the theory reinstates three features of Bentham's utilitarianism, which had been abandoned earlier. These are the following

- (1) Utility is derived from actions, not commodities.
- (2) Utility is not a homogeneous abstract index number.

⁵On the difference between mere dynamics and evolutionary dynamics cf. e.g.Witt (2004, p.130).

⁶Cf. Walras (1926, p.117) who frankly admits that fact and then assumes it away.

⁷The approach is inspired by a desire for a unification of the knowledge of different disciplines. For such an understanding E.O.Wilson has coined the term "consilience" (Wilson, 1998).

(3) Utility can be observed and be measured despite its subjective nature.

To derive utility from the outcome of actions, and not commodities, is a revocation that has been proposed by Kahneman et al. (1997). The authors show that utility can be connected to temporally distinct episodes. This is not unimportant since pleasurable experiences are not necessarily connected with commodities *per se*. Often we derive "procedural utility" from mere participation (where no commodities are involved). As such, the basis of the theory is considerably broadened and more in line with empirical findings. In the same paper, Kahneman et al. further show how utility as a sensory experience can be observed and measured despite its subjective nature.⁸

The probably most distinctive of the three features of sensory utilitarianism is, however, the naturalization of preference theory. This leads to feature (2). Adopting insights from psychology, Witt suggests a theory of wants where the satisfaction of different wants entails different pleasures so that utility is no longer a compound homogeneous measure. As this is an important feature of the theory, we will dwell a little longer on this theory of wants: The idea of humans having a set or hierarchy of needs is not new. Precursors can be found in Platon (Republic); in economics, attempts were those of Menger (1871) and Georgescu-Roegen (1954). The problem with these attempts is, however, that they rely on prima facie intuitive ideas of such an account without relying on actual findings from psychology and other sciences to substantiate their claims. 10 Witt's theory of wants provides such a foundation when linking the concept of wants to very well established results from psychology: Wants are behavioral dispositions (Witt, 2001, p.26) that derive from a state of deprivation in an organism. When a want is not satisfied, i.e. deprivation occurs, the organism experiences unpleasant sensory perceptions. On the other hand, the satisfaction of a want causes a pleasant sensory experience and is thus positively reinforced.¹¹ It cannot be the aim to provide an updated list of Bentham's different pleasures, but such wants include the ones for air, food, warmth, social recognition etc. (cf. Millenson, 1967, p.368 for a more comprehensive list). These wants can be divided into two subsets. The first subset of so-called "innate wants" consists of all those wants which we are genetically endowed with. This means that all humans share this set of wants (with the usual genetic variance). It is a finite set that possibly contains only a small number of wants, such

 $^{^8}$ Kahneman et al. even hint at the possibility of making interpersonal comparisons of utility (ibid., pp.379-8 and p.383), though this seems very speculative at the moment.

⁹Note, however, that this proposal leads to an enormous increase in complexity of the underlying utility theory. If such a theory would be mathematically tractable is questionable, however, for an attempt at such a formulation cf. Georgescu-Roegen (1954) or Wadman (2000, Ch.6).

¹⁰In psychology, a hierarchy of needs has been prominently suggested by Maslow (1954). However, it seems rather difficult to empirically validate that there indeed exists a structured hierarchy of needs (cf. Wahba and Bridwell, 2002, pp.61-4). It therefore seems to be more promising to drop the idea of a hierarchy in favor of a set of interrelated needs (or, synonymously: wants, motives). A recent example of this approach would be Reiss (2000).

 $^{^{11}\}mathrm{As}$ such, those wants correspond to what in psychology are called "reinforcers" (cf. Skinner, 1953, Chs.5&6).

as those mentioned above. On the other hand, there are "acquired wants" which are formed through individual and social learning processes. This learning takes place via innate learning mechanisms, again a feature of our genetic endowment that everyone shares. Learning can take the form of associative learning or forms of social cognitive learning (e.g. imitational learning, cf. Bandura, 1986, Ch.2). It is clear that, while those learning mechanisms are elementary behavioral programs that are genetically coded and thus common to all humans (cf. Lumsden and Wilson, 1981; Pulliam and Dunford, 1980, Chs. 2&3), the wants that are formed through them can be different from individual to individual. And moreover, there can be a huge variety of acquired wants (Witt, 2005, p.16) that is path-dependent and culturally conditioned (i.e. the subjectively formed structure of acquired wants in an individual depends on temporal and cultural factors): "a huge inter-personal variety of idiosyncratic acquired wants is likely to result" (ibid.).¹² ¹³

The learning of new wants is the element which makes 'sensory utilitarianism' a dynamic, evolutionary theory. To cope with this change of wants, the idea is to use the learning mechanisms mentioned above as the "transition laws" which govern the systematic change in tastes and motives.

So far, we have omitted a very important assumption for the theory of 'sensory utilitarianism'. This assumption has been put forward by Witt in form of the so-called "Continuity Hypothesis" (Witt, 2003b, 2004). This hypothesis suggests that there is an ontological continuity between biological and cultural evolution, "a basic continuity of evolution".

Contrary to another position in evolutionary economics, called "Universal Darwinism" (cf. e.g. Hodgson, 2002), the Continuity Hypothesis rejects the application of abstract principles derived from Darwinism in biology to socio-economic evolution. While it is common to both positions to posit an ontological continuity of evolution, the difference lies in the following: Universal Darwinism attempts to use the (domain-specific) Darwinian principles of biological evolution (such as variation, selection, retention) for all other forms of evolution as well. This is rejected from the point of view of the Continuity Hypothesis of overstretching the domain of such principles. Adherents of the latter position rather aim at finding common regularities which pertain to all forms of evolution but not prioritizing the principles of biological evolution. We have encountered features of our human biological heritage so far, which make it necessary to think about in how far man is still determined by his biological makeup. The answer the hypothesis aims at giving is that the evolution of human activities is no longer shaped by biological evolution in the form of natural selection, but by other forces (commonly called cultural

¹²Georgescu-Roegen (1954, p.517) argues that these wants should be similar for members of the same cultures or societies. However, he does not substantiate this claim beyond its mere *prima facie* plausibility.

¹³Obviously, this is a difference between objectivist accounts such as Sen's "capabilities and functionings" (cf. e.g. Sen, 1985), where all functionings are shared by everyone and more subjectivist accounts such as sensory utilitarianism, where there are objective parts but also the allowance for subjective learning histories and variance.

evolution).¹⁴ Nevertheless, human activity is still constrained by the former (however, due to a lessened selection pressure today, variants of behavioral dispositions can evolve which have no clear adaptive value or are even detrimentary to reproductive success, cf. Witt, 1987, pp.110-1).

"[...] while natural evolution [...] is only one form in which evolution occurs in reality, it is that form which, in historical time, anteceded the other forms of evolution [...] It has therefore shaped the ground and still defines the constraints for man-made, or cultural, evolution. In this sense there is, thus, also an ontological continuity despite the fact that the mechanisms and regularities of cultural evolution differ from those of natural evolution." (Witt, 2003b, pp.15-6)

Subscribing to that view, evolution is defined (abstractly, and domain-unspecifically) as the "self-transformation over time of a system under consideration" (ibid., p.13, emphasis omitted). Transformation here denotes a process of change guided by regularities ("transition laws"). This self-transformation, in turn, consists of the emergence and dissemination of novelty (two distinct, domain-unspecific features¹⁵).

It is clear that the hypothesis of an ontological continuity is the basis for the theory of wants described above (Witt, 2003b, p.16): On the one hand, our genetic makeup still determines innate wants and learning mechanisms (as innate dispositions and mechanisms, they are the foundation for cultural evolution). On the other hand, the way acquired wants are formed through cultural influences makes clear that we need other theories and principles than those of natural evolution to explain the formation of wants as well (i.e. other domain-specific principles to explain cultural evolution; this also pertains to the evolution of values and institutions such as morality).

The aim of sensory utilitarianism is to provide sound material conjectures about human (economic) behavior, which is driven largely by behavioral mechanisms (Witt, 2000, p.13). The question which we now have to deal with is, if we can come to meaningful conjectures on the basis of the theory outlined above. If we accept the importance of learning mechanisms and consider that most of human preferences thus are (socially) conditioned and only a small subset of preferences is shared due to our biological makeup, it has to be concluded that the implication of the evolutionary framework outlined above implies a form of descriptive cultural relativism:

¹⁴It is argued by evolutionary psychologists and sociobiologists that human inventiveness has led to a significant decrease of selection pressure so that human genetic endowment has not changed very much since that point, which is usually dated to the Pleistocene. This means mankind is genetically adapted to an environment that does not bear too many similarities with today (Barkow et al., 1992; Nicholson, 1997, pp.1055-6).

¹⁵These two concepts come in different domains in different forms. In natural evolution, those two concepts translate into random mutation and genetic recombination on the one hand, and selective replication on the other. In economics, novelty is created in form of innovations (but this is no longer a process of random mutation as it is guided by intentional human activity) and disseminated via processes of imitative learning (cf. Witt, 2003b, p.13).

"Whatever perspective is taken, one conclusion that can always be drawn from the nonreversible preference formation process is a strong value relativism." (Witt, 2000, p.20)

But is this descriptive relativism really so strong? Is preference formation totally idiosyncratic? In the remainder of the paper, we will discuss whether those parts of our human nature that are shared by everyone (viz. innate wants and learning mechanisms) are not a sufficient basis to argue that the resulting descriptive relativism is not so strong at all. If we all share some values (by nature) then this seems to be a starting point for a more moderate version of descriptive value relativism. And possibly, on this basis, we can even derive some substantive normative propositions for evolutionary economics. Of course, descriptive relativism does not logically imply in *sensu stricto* anything normative (as this would mean committing the naturalistic fallacy), but as has been said in section two, descriptive cultural relativism can be seen as a strong supporting argument in favor of meta-ethical and normative moral relativism.

4 What's Wrong with Cultural Relativism? A Neo-Pragmatist Approach

We have seen that defending a framework of evolutionary economics such as the one sketched out in section three implies a form of descriptive cultural relativism because of the influence that different cultures have on our tastes and values (or in economic terminology, our preferences or wants). As relativism is often seen as a form of skepticism (Popper, 1966, p.369), such a conclusion seems to be very unfortunate for the economist who wants to say something meaningful about the influence of institutions such as morality on economic behavior (and *vice versa*). Contrary to that intuition, we want to argue in this section that there are good reasons to go as far as to endorse a position of meta-ethical relativism as well, when embracing a theory as the one outlined above.

Recently, there has been given much attention to pragmatist approaches to economic theorizing (e.g. Posner, 1997; Knight, 2001; Bromley, 2006). We agree with those authors on the attractiveness of pragmatism for economics and want to concentrate here on the question of how a (neo) pragmatist reconstruction of cultural relativism would look like (this section) and what the implications for evolutionary economics would be (next section). The position we adopt is the one defended by the philosopher Hilary Putnam. Though he has seen himself as a very strong opponent of relativistic positions (cf. e.g. Putnam, 1997, Ch.4 *et passim*), his theory of "internal realism" has been shown to be a somewhat weak form of relativism as well (cf. Binder, 2004, pp.150-62). Putnam's "internal realism" is mainly an epistemic theory about meaning,

¹⁶The reference is to a more extensive account of the debate between the philosophers Putnam and Rorty about the relativist implications of Putnam's theory. Putnam later had to admit that he seemed to

truth and justification. Due to his theory about the "collapse of the fact/value-dichotomy" (Putnam, 2002), a theory about the connection between fact and value, internal realism's relativism about truth is connected to relativism about morality and cultural values.

Now, after this *prolegomenon*, let us examine Putnam's position. We can characterize the theory *in nuce* as consisting of the following five theses:

- "(1) In ordinary circumstances, there is usually a fact of the matter as to whether the statements people make are warranted or not. [...]
- (2) Whether a statement is warranted or not is independent of whether the majority of one's cultural peers would say it is warranted or unwarranted.
- (3) Our norms and standards of warranted assertibility are historical products; they evolve in time.
- (4) Our norms and standards always reflect our interests and values. Our picture of intellectual flourishing is part of, and only makes sense as part of, our picture of human flourishing in general.
- (5) Our norms and standards of anything including warranted assertibility are capable of reform. There are better and worse norms and standards." (Putnam, 1990, p.21)

These five theses are fairly typical pragmatist principles that have been defended by most pragmatist philosophers (Putnam, 1990, p.22). We will discuss them as necessary to shed light on their implications.

Theses (1) and (2) deal with Putnam's theory of truth and justification. Putnam describes himself here as having a non-relativistic account of truth (1) and he rejects consensus theories of truth (2). For Putnam, truth is more than just warranted assertibility as he links it to "ideal epistemic conditions". For him, truth is the idealization of warranted assertibility (or synonymously: rational acceptability). These ideal epistemic conditions could be understood as a situation where the degree of justification completely justifies the acceptance of a proposition. It is a situation where the speaker of a proposition is sufficiently well-situated to make the proposition (e.g. an expert free from any compulsions, after careful and impartial deliberation etc.). Unfortunately, the idea of such ideal epistemic conditions has never been sufficiently defined by Putnam (cf. Binder, 2004, p.142-50).

In Putnam's account of truth, propositions are true relative to our conceptual frameworks (these are historically grown frameworks that contain the meaning we attach to concepts). But when inside such a conceptual framework, there are objective facts. These facts are not objective in the sense of an external "God's-eye" perspective, however. Remember the Janus-view of such

be tricking himself about the underlying controversy (Putnam, 1992, p.373), which extends into questions about truth and justification but which is not of primary interest in the present context.

positions. Putnam is thus neither strongly relativist nor skeptical about truth and morality. This is not the place to discuss the problems associated with such an account of truth (cf. on this issue Binder, 2004). Suffice to say that one could either construct the ideal epistemic situation as a normative transcendental fiction. This then would have to be somehow motivated and is especially inadequate from a naturalist point of view (cf. Johnson, 1991, p.327). Otherwise one is left with an account of truth as justification (which is closer to most pragmatist accounts, cf. e.g. Rorty, 1998, p.50). For the present paper, we will restrict our attention to theses (3) - (5) which describe Putnam account of morality and values. Because of Putnam's idea of human rationality transcending cultures and societies, he can make sense of those theses in the following way.

Thesis (3) is absolutely compatible with the framework of the evolutionary economist. The principle is evolutionary since it can be interpreted in the sense of evolution spelled out in the section above. That means Putnam's point of view is compatible with the form of descriptive cultural relativism described above. Thesis (4) links any methodological value judgments to human interest and our picture of human flourishing in general. This notion of human flourishing, or *eudaemonia*, denotes the overall idea humans are supposed to share concerning what it means to lead a good life.¹⁷ The thesis is a formulation of Putnam's (and other pragmatists') understanding that facts and values cannot be separated. Thesis (5) is the most interesting of the theses as it states that any cultural standards and values are "capable of reform" (this pertains to the intellectual, scientific and justificatory standards as well). The problematic point here is that Putnam has a very strict idea of what he means by "reform":

"[...] it is internal to our picture of 'reform' that whether the outcome of a change is good [...] or bad [...] is logically independent of whether it seems good or bad." (Putnam, 1990, p.24)

We'll have to further examine Putnam's understanding of the notion of "reform" to see the kind of position Putnam holds on the evolution of cultural values: Basically, thesis (5) is a conjecture about cultural and moral progress. For Putnam, there exists the possibility to judge whether some standards and norms are objectively better than others. We have already discussed theses (1) and (2) so that the question arises how to interpret the notion of "objectivity". While Putnam himself claims that from our position in history today, we are able to judge other cultural norms and values as better or worse absolutely, obviously this claim is at odds with the conceptual relativity and historical contingency of our human position. This is clearly a normative view Putnam holds. How then, can Putnam come to such a claim? As his critics argue (cf. Rorty, 1998, pp.51-2), he tacitly seems to assume a position with a "view from Nowhere", a "God'seye-view", when saying it is possible to judge within the relativity of our conceptual frameworks whether other frameworks are absolutely superior to our framework or not. Take the example

¹⁷This notion goes back to Aristotle.

of a neo-fascist culture as discussed by Rorty (1998, p.54 fn 36) and Putnam (1982, pp.266-85). A moral relativist would hold the claim that it is possible that our cultural values would evolve over time such that we ultimately endorse such a position (which we think very inferior at the present time), although all changes on the way seemed an improvement to us. Within relativism, there is no absolute external and unchanging standard at all to judge the change that comes about. Suppose we have a set of values V_0 at time point t_0 . After some time, those values evolve to a set V_1 (at t_1) because at t_0 V_1 was considered an improvement after a process of rational deliberation. Repeat those steps. It is not impossible that such a series of steps that consists of improvements (when judged at the different time points) leads in the end to a set of values V_2 that would be judged inferior at t_0 (but is not judged inferior when arrived at t_2 , due to the transformation of values). Saying that V_2 is always inferior to V_0 tacitly presupposes an absolute measurement standard, something we cannot have when embracing the relativist position (1)-(5). Or can we?

According to Putnam, our standards of rationality are part of our picture of human flourishing, i.e. our *eudaemonia*. As such this framework of our "Weltanschauung" is the basis on which Putnam wants to ground his theory. However, this cannot be understood as a definitive foundation for Putnam's philosophy (which is, as most pragmatist philosophies are, antifoundationalist, cf. Putnam, 1994, p.152). Our understanding of our *eudaemonia* is subject to reform as well (in the sense above).

As Putnam is not able to give any arguments for his notion of reform, and he furthermore does not give any foundation for his claim that there are standards which are objective in a sense that goes beyond framework-dependence, he has (rightly) been accused of intuitionism to save his account from relativist consequences (Rorty, 1998; Schäfer, 1995, pp.98-100). Indeed, Putnam stops the justificatory process concerning his idea of a shared human *eudaemonia* and conception of rationality with reference to his intuition that it cannot be otherwise. This way out of the Münchhausen-Trilemma is somewhat unsatisfactory and we can thus conclude that Putnam's idea of cultural evolution is relativist, albeit in a weak form (cf. his remark on this matter in Putnam, 1982, pp.284-5). However, Putnam's idea of human flourishing could be put on a sounder basis with a naturalistic foundation: Instead of appealing to the self-evidence that there are commonly shared basic values, this value-basis can be reconstructed with reference to our shared genetic makeup. Arguing that nature has endowed us with a (however small) common set of values that constitute our idea of human flourishing can provide a basis to escape skeptic (moral) consequences. Thus, Putnam's account of pragmatism could be put on firm grounds and used in evolutionary economics. We will discuss this in the next section.

 $^{^{18}{\}rm Cf.}$ also Johnson (1991, pp.323-4) and Wong (1986, p.104).

5 Implications for Evolutionary Economics: Naturalistic Relativism

In the previous section, we have examined Putnam's pragmatist account of morality and cultural values. What now remains to be done is a reconstruction of the position as an anti-foundationalist justification for normative evolutionary economics. In how far evolutionary economics can benefit from such a reconstruction will be detailed in this section.

Contrary to extreme forms of relativism and skepticism, Putnam's account of morality and cultural evolution is anti-skeptical. His argument on what we may say about different moralities and that we can justifiedly characterize some of them as superior and some of them as inferior is optimistic and aims at enabling and furthering moral discourse. Putnam has no objections about this normative position as from his point of view, the dichotomy between facts and values does not exist. Any discourse is based on human standards of rationality, which are in turn based on our understanding of human flourishing. Inevitably, that means that all human discourse is permeated with values.

As expressed in Putnam's thesis (3), cultural norms and values are historical products and we should not see them otherwise. In this we find a common understanding between evolutionary economics and Putnam's cultural pragmatist relativism. As has been said before, descriptive cultural relativism does not necessarily imply normative relativism. However, we want to make a case here for embracing a weak form of meta-ethical and normative relativism.

Of course, Putnam's position itself is normative with respect to the (weak) foundation of some cultural values through a commonly (universally) shared *eudaemonia*. We think that Putnam's foundation is weak because it posits our shared understanding without giving reasonable arguments for its being there. Moreover, he then gives this common understanding a very important role in settling moral disagreements. He goes so far as to (though he more often then not does so only tacitly) use the normative notion of our *eudaemonia* as the measuring rod to settle disputes on valuations. It seems that a proper understanding of the genesis of our shared view of what constitutes a good life would make Putnam's claims much stronger and would lend a better justification to his position. Furthermore, Putnam is too vague what the entanglement of facts and values means in the context of his position. It does not become sufficiently clear why our commonly shared *eudaemonia* should guarantee that our moral judgments would trump those held by divergent cultural groups. Insofar, it is crucial to find a better justification that indeed all humans share some values in common. Only on this basis could we formulate an argument that would limit the arbitrariness of moral judgments. A commonly shared value basis would allow for an understanding such that indeed (some) moral conflicts could be resolved.

Such an understanding can come, this is our argument, from a naturalistic perspective. We therefore want to propose a position that we want to call 'naturalistic relativism'. It is a position similar to Putnam's pragmatist relativism, but with more naturalistic underpinnings. 'Natural-

istic relativism' consists of five interrelated parts.

- (1) Hypothesis of weak descriptive cultural relativism
- (2) Continuity hypothesis of cultural and biological evolution
- (3) Constrained (naturalistic) normative relativism proposal
- (4) Naturalistic relativist toolset for analysis
- (5) Implications for evolutionary economics

Theses (1) and (2) are descriptive in nature. The third thesis is a normative correlate, and (4) and (5) are methodological considerations derived from the former thesis. These elements are to be understood as follows.

(1) Descriptive cultural relativist thesis

Our tastes, values and the picture of a good life we have are shaped by mechanisms of cultural evolution. Not only are tastes and values dynamically changing over time and across cultures, they are always based on tastes and values of the past. This means they evolve from earlier held tastes and values. As such, they do not change entirely capriciously. Even more, their change is constrained by (or subject to) the mechanisms of cultural evolution. As such, learning mechanisms are a constraint on the historical development of values and wants. To our understanding, this hypothesis is supported by strong empirical evidence provided by cultural anthropologists and sociobiologists (cf. Shweder, 1991; Geertz, 2000), and in the case of the evolution of wants, evolutionary psychologists (cf. Witt, 2001; Binder and Niederle, 2005, for an extensive overview).

(2) Continuity of cultural and biological evolution thesis

This hypothesis plays an important and constitutive role in the account of naturalistic relativism since it considerably weakens thesis (1). The continuity hypothesis (Witt, 2003b, 2004) provides the rationale for limiting the influence of culture on human values. It is an answer to the question how strong descriptive cultural relativism is, viz. how much influence can be attributed to the role of human universals on human behavior (cf. also Brown, 1991).

While our biological makeup thus defines the constraints for possible human behavior and development of cultural values (cf. Barkow et al., 1992, p.5), social interaction shapes our cognitive frameworks: this can lead to socially shared models of behavior (Bandura, 1986, Ch.2) and ideas (often with normative connotations) of how to behave in certain social situations. Those shared cognitive frameworks (including moral codes, cf. also Witt, 2003a, p.22) develop because they are learned via mechanisms of social cognitive learning.

(3) Normative relativism proposal

Using the above-mentioned naturalistic insights, we can conclude that Putnam's idea of an *eudaemonia* as the basis to judge moral progress can only be upheld in a very modest and weak form. Embracing meta-ethical relativism in this form amounts to asserting that moral disagreements are prevailing but they are limited through the similarities humans share in the form of their biological and psychological makeup. On a basis of a (small) set of shared wants (and values) there emerges a large set of not commonly shared wants.

This position might be called 'naturalistic relativism', a form of cultural relativism which is weaker than the strong forms of anything-goes relativism. Naturalistic relativism excludes some forms of development of values, and furthermore defines how values develop depending on their past development (as such, it is an evolutionary, temporal relativism). It cannot, however, make predictions as to exactly which forms of values will emerge in the future, due to the epistemic barriers that are inherent in the understanding of the nature of evolution as self-transformation through generation and dissemination of novelty. This epistemic barrier is obvious: Since we do not know what the future brings, we cannot forecast the developments.

But such a naturalistic relativism can put forward arguments on constraints to the development of values. Note, that this amounts to a limited possibility of negative forecasting since it means giving 'educated guesses' on what kinds of future options are excluded due to past trajectories and path-dependencies in the development.

Such an 'exclusion-principle' has also been proposed by Wong (1995, pp.383-4): While many moralities might be true (for cultures), some others might be definitely not true. Why is that? Cultural evolution might have led to divergent sets of values in different societies (and/or different times). Because of the limiting constraints of our biological makeup, there are, however, (objective) limits to what moralities can be true. Some moralities are no "real option" (Williams, 1986, pp.160-2) to us due to our past (this might be the case for the example in the previous section: an optimist might argue that from the point of view of a western liberal, becoming a "rational nazi" is logically possible -conceivable- but no longer a real option). But despite these limits to further developments, it can be conjectured that there is still plenty room for developments, i.e. those limits are quite broadly defined.

Nevertheless, from inside these boundaries of what constitutes our culture and what sets of cultural values are possible options, we can come up with arguments and criteria to develop better norms and standards. While we do not have an absolute measuring rod to judge on the alternatives *sub specie aeternitatis*, the naturalistic relativist is content without such an absolute foundation. First of all, we have a small basis in the form of our commonly shared *eudaemonia* based on our commonly shared innate wants. On this basis, we can derive a (possibly) small value set that indeed everyone can subscribe to (see similar also Wong, 1995, p.389, who calls this a "skeleton of a morality"). This set then can be a basis to devise procedures of deliberation to settle moral disagreements concerning divergent values. Secondly, in designing these

procedures, we can keep in mind the role human learning plays: Acknowledging for cultural diversity, our shared capacity for learning and for empathy (i.e. picturing oneself in the shoes of another, cf. Tomasello, 1999; Damasio, 2003, p.270) can be taken as a starting point for deliberation processes where humans learn to understand the moral values of others. ¹⁹ Our innate wants and the capacitiy to learn are a naturalistically established basis on which value conflicts can thus be settled.

Of course, basing our understanding of morality on a relativistic conception might provoke the idea that moral values can loose their normative force and are no longer binding. As opposed to a position of moral objectivism where values are taken as universally valid, this is certainly a weaker position. Possibly, some values will loose some of their motivating force in such a framework (e.g. people would no longer be willing to make the same sacrifices as compared to when values are taken as absolute). But this means as well that fanaticism and moral arrogance or imperialism are constrained as well (Wong, 1995, p.395).

Furthermore, the naturalistic relativist, having recognized the importance of learning mechanisms as drivers for cultural evolution, will embrace a modified form of the "principle of charity" (Wilson, 1959, p.532): As there is no eternal standard to judge moralities, open deliberation of valuational judgments plays an important role for ethical discourse. Giving others the opportunity to learn and *vice versa* making sense of others' valuations is the normative content of this principle (this is similar to the point that is made by Popper, 1966, p.386). This seems to be as well the point that Putnam (1994, p.196) wants to make. Again, this is genuinely pragmatist.

(4) Toolset for analysis

Naturalistic relativism is a decidedly pragmatist theory. Therefore, it aims at providing a toolset of instruments to carry out analyses concerning the relevance of diverse moral judgments. The tools we want to discuss in the context of this paper are the 'genetic analysis' (or 'historical approach') and the 'analytical narratives' method. Both are well-suited to discuss the evolution of values and their importance for economic analysis.

The genetic or historical analysis is helpful in tracing the evolution of certain values or moral systems over time. Value systems change over time but our set of innate wants provides a powerful basis that limits the possibilities in which moral values can change. In that respect, some values of our *eudaemonia* seem to be related to those wants. Moral belief systems that are not in accordance with our *eudaemonia* are thus no "real option" to develop. A well-known example is Nietzsche's "Genealogy of Morals" (cf. Nietzsche, 1887) where the development of morality is sketched.²⁰ This method can be used to examine the process of preference or value formation to see according to what regularities such a process of evolution takes place and

¹⁹Cf. more extensively also Cordes and Schubert (2005) on the role of empathy for normative economics. ²⁰Cf. Wuketits (2000) for a concrete application of such an evolutionary account, concerning the nature of 'evil'.

whether those processes have accorded to certain standards (e.g., was the process of preference formation one of voluntary deliberation or did it take place under coercion; cf. Christman (1991), p.10 or Elster (1982), p.237 as proponents of this method). This leads to what Wilson (1998) suggests as well:

"[B]y exploring the biological roots of moral behavior, and explaining their material origins and biases, we should be able to fashion a wiser and more enduring ethical consensus than has gone before." (Wilson, 1998, p.240)

The second approach to shed light on the evolution of values could consist in using the analytical narrative method Bates et al. (1998, 2000a,b). As the 'historical approach' using the method yields insights into the trajectories of the evolutionary process of cultural values.

(5) Implications for evolutionary economics

Contrary to Robbins' quote in the introduction, economics as a positive science is nevertheless full of value judgments (cf. Blaug, 1998; Wilber, 1998, pp.138-9). Consider for example the normativity of the notion of 'rationality' (Hausman and McPherson, 1996) or of the notion of 'allocative efficiency' (cf. Blaug, 1992, pp.124-6).

It is certainly in order to make a distinction between those value judgments that are "methodological" (Blaug, 1992, p.114) or "characterizing" (Nagel, 1961, pp.492-3) value judgments (pertaining to methodology and other conventional issues) and those value judgments, which could be called "appraising" or "normative" as they deal with questions of what should be called "good" in an eudaemonic sense. However, the border between both is fuzzy, since normative value judgments can very well impose limits on methodology and *vice versa*. The same fuzziness is often to be observed concerning facts and values. Putnam's argument for the collapse of such a dichotomy is valid (cf. Putnam, 2002, 2004) and to artificially maintain such a dichotomy means deliberately obscuring the process of scientific investigation. From our point of view, any complete separation of facts and values must be doomed. While it might be worthwhile to hold onto such a separation for methodological reasons, economics should become aware of the implicit values the discipline endorses. Making these then explicit is a necessary step in disentangling the confusion about the possibility about value-free economics.

From the point of view of naturalistic relativism, instrumentalism and positivism as skepticist positions are unacceptable insofar as they artificially abstain from value judgments. Naturalistic relativism acknowledges that human endeavors are characterized by their normativity. It mediates between static and unrealistic claims of objective morality on the one hand, and skeptical positions of no values or everything-goes-moralities on the other hand. Naturalistic relativism can do so because it is based on value judgments which are in accordance with what could be called "human nature" (and in continuation with the mechanisms of cultural evolution). While some very basic mechanisms are shared by everyone (cf. e.g. Henrich et al., 2001),

naturalistic relativism is well aware of the fact that many other values can only be justified relative to cultures. Relative to a culture, however, these values are justified and any moral obligations arising thereof are binding. As such, naturalistic relativism does not do away with human responsibility (as skeptical positions often do).

We think that economics should start acknowledging our moral basis (and our moral biases) and use those values in the inquiry. Economists have to make the underlying normative assumptions explicit (cf. Weber, 1988). Although Robbins has set the tone for economics as a rigorous science without any ethical content, he has implicitly also endorsed values: the quote in the introduction has to be interpreted more as a normative statement than as a descriptive one.

As human (economic) behavior is guided by values, economic analysis has no good justification for arbitrarily confining itself to (allegedly) value-free analyses. To the contrary, it can use the positive insights of changing values for developing normative correlates. On this ground, normative economics can make a contribution to a meaningful (and not less) scientific analysis of human behavior. Fields of application as the evolution of institutions, the question of what constitutes human welfare, the role of biological and cultural evolution in conflict theory, or environmental economics can massively profit from a conscious use of naturalistic relativism as justificatory theory for normative assumptions. This paper should be seen as a manifesto for economists to start taking that step.

6 Conclusion

Economists' refusal to adequately deal with normative questions has expressed itself in positivist and instrumentalist positions. From the point of view of evolutionary economics, such a skeptical approach is undesirable since this research field aims at deriving meaningful goals for policy that go beyond instrumentalism. It is obvious that this has to include cultural and moral values as these are main determinants of human behavior and shape, for example, institutions such as morality or legal codices. Sensory utilitarianism and the continuity hypothesis are such a set of evolutionary economic theories. Both taken together imply a form of descriptive cultural relativism, as tastes and values are something which has been formed in a process of cultural evolution (constrained by biological evolution). It has been argued that a reconstruction of a form of neo-pragmatist relativism is a fitting normative correlate for evolutionary economics. This normative theory is thus a possible basis for the still missing normative branch of evolutionary economics. It has been spelled out how such a position, called 'naturalistic relativism', would have to be understood and what its main characteristics are. Pointing to further research, this paper can be seen as a conceptual basis, outlining the ground for more applied work in the field of evolutionary welfare economics: Insights from psychology and other social sciences could form the basis for value judgments and policy advice can be given on the grounds of applying the methods described in section five. We hope that this paper has been a small

contribution to broadening the scope of welfare economics.

References

- Albert, H. (1991). *Traktat über Kritische Vernunft*. J.C.B. Mohr (Paul Siebeck), Tübingen, 5th.rev. edition.
- Bandura, A. (1986). *Social Foundations of Thought and Action A Social Cognitive Theory*. Prentice Hall, Upper Saddle River/New Jersey.
- Barkow, J., Cosmides, L., and Tooby, J. (1992). *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*. Oxford University Press, Oxford.
- Bates, R., Greif, A., Levi, M., Rosenthal, J.-L., and Weingast, B. (1998). *Analytic Narratives*. Princeton University Press, Princeton/New Jersey.
- Bates, R., Greif, A., Levi, M., Rosenthal, J.-L., and Weingast, B. (2000a). Analytic Narratives Revisited. *Social Science History*, 24(4):685–696.
- Bates, R., Greif, A., Levi, M., Rosenthal, J.-L., and Weingast, B. (2000b). The Analytic Narrative Project. *American Political Science Review*, 94(3):696–702.
- Bentham, J. (1948[1789]). An Introduction to The Principles of Morals and Legislation. Hafner, New York.
- Binder, M. (2004). Zwischen Metaphysik und Relativismus Zu Hilary Putnams Wahrheitssuche im Kontext der klassischen Wahrheitstheorien. LIT, Münster.
- Binder, M. and Niederle, U.-M. (2005). Institutions as Determinants of Preference Change A One Way Relation? Papers on Economics & Evolution #0607, Max Planck Institute of Economics, Jena.
- Blaug, M. (1992). *The Methodology of Economics*. Cambridge University Press, Cambridge, 2nd. edition.
- Blaug, M. (1998). The Positive-Normative Distinction. In Davis, J., Hands, W., and Mäki, U., editors, *The Handbook of Economic Methodology*, pages 370–374. Edward Elgar, Cheltenham/UK.
- Bromley, D. W. (2006). Sufficient Reason Volitional Pragmatism and the Meaning of Economic Institutions. Princeton University Press, Princeton/New Jersey.
- Brown, D. (1991). Human Universals. McGraw-Hill, New York.
- Christman, J. (1991). Autonomy and Personal History. *Canadian Journal of Philosophy*, 21(1):1–24.
- Cordes, C. and Schubert, C. (2005). Toward a Naturalistic Foundation of the Social Contract. Papers on Economics & Evolution #0501, Max Planck Institute of Economics, Jena.
- Damasio, A. R. (2003). Looking for Spinoza. Heinemann, London.

- Elster, J. (1982). Sour Grapes Utilitarianism and the Genesis of Wants. In Sen, A. and Williams, B., editors, *Utilitarianism and Beyond*, pages 219–238. Cambridge University Press, Cambridge.
- Geertz, C. (2000). Available Light: Anthropological Reflections on Philosophical Topics. Princeton University Press, Princeton/New Jersey.
- Georgescu-Roegen, N. (1954). Choice, Expectations and Measurability. *The Quarterly Journal of Economics*, 68(4):503–534.
- Gowans, C. W. (2004a). A Priori Refutations of Disagreement Arguments against Moral Objectivity: Why Experience Matters. *The Journal of Value Inquiry*, 38:141–157.
- Gowans, C. W. (2004b). Moral Relativism. Stanford Encyclopedia of Philosophy, http://plato.stanford.edu/entries/moral-relativism.
- Gowdy, J. (2004). Altruism, Evolution, and Welfare Economics. *Journal of Economic Behavior & Organization*, 53:69–73.
- Harman, G. (1996). Moral Relativism. In Harman, G. and Thompson, J., editors, *Moral Relativism and Moral Objectivity*, pages 3–64. Blackwell Publishers, Cambridge/Mass.
- Hausman, D. and McPherson, M. (1996). *Economic Analysis and Moral Philosophy*. Cambridge University Press, Cambridge.
- Henrich, J., Boyd, R., Bowles, S., Camerer, C., Fehr, E., Gintis, H., and McElreath, R. (2001). In Search of Homo Economicus: Behavioral Experiments in 15 Small-Scale Societies. *American Economic Review (Papers and Proceedings)*, 91(2):73–78.
- Hodgson, G. M. (2002). Darwinism in Economics: From Analogy to Ontology. *Journal of Evolutionary Economics*, 12:259–281.
- Hume, D. (1978[1740]). A Treatise of Human Nature. Oxford University Press, Oxford, 2nd. edition.
- Jevons, W. (1924[1871]). The Theory of Political Economy. MacMillan, London, 4th. edition.
- Johnson, J. (1991). Making Noises in Counterpoint or Chorus: Putnam's Rejection of Relativism. *Erkenntnis*, 34(3):323–345.
- Kahneman, D., Wakker, P., and Sarin, R. (1997). Back to Bentham? Explorations of Experienced Utility. *Quarterly Journal of Economics*, 112(2):375–405.
- Knight, J. (2001). A Pragmatist Approach to the Proper Scope of Government. *Journal of Institutional and Theoretical Economics*, 157(1):28–48.
- Kuhn, T. (1993). *Die Struktur wissenschaftlicher Revolutionen*. Suhrkamp, Frankfurt/Main, 12th.rev. edition.
- Lumsden, C. and Wilson, E. (1981). *Genes, Mind and Culture: The Coevolutionary Process*. Harvard University Press, Cambridge/Mass.
- Mandelbaum, M. (1962). Some Instances of the Self-excepting Fallacy. *Psychologische Beiträge*, 6:383–386.

- Maslow, A. (1987[1954]). Motivation and Personality. Harper Collins, New York, 3rd. edition.
- Menger, C. (1950[1871]). Principles of Economics. The Free Press, Glenco/Illinois.
- Millenson, J. (1967). Principles of Behavioral Analysis. MacMillan, New York.
- Mirowski, P. (1988). *Against Mechanism Protecting Economics From Science*. Rowman & Littlefield, Totowa/New Jersey.
- Nagel, E. (1961). *The Structure of Science Problems in the Logic of Scientific Explanation*. Harcourt. Brace & World, New York.
- Nicholson, N. (1997). Evolutionary Psychology: Toward a New View of Human Nature and Organizational Society. *Human Relations*, 50(9):1053–1077.
- Nietzsche, F. (2003[1887]). The Genealogy of Morals. Dover Publications, Mineola, N.Y.
- Popper, K. R. (1966). *The Open Society and Its Enemies*, volume II. Princeton University Press, Princeton/New Jersey, 5th.rev. edition.
- Posner, R. (1997). A Pragmatist Manifesto. In Menand, L., editor, *Pragmatism A Reader*, pages 418–435. Vintage Books, New York.
- Pulliam, H. and Dunford, C. (1980). *Programmed to Learn: An Essay on the Evolution of Culture*. Columbia University Press, New York.
- Putnam, H. (1982). Vernunft, Wahrheit und Geschichte. Suhrkamp Verlag, Frankfurt/Main.
- Putnam, H. (1990). Realism With A Human Face. Harvard University Press, Cambridge/Mass.
- Putnam, H. (1992). Replies. Philosophical Topics, 20(1):347–408.
- Putnam, H. (1994). Words and Life. Harvard University Press, Cambridge/Mass.
- Putnam, H. (1997). Für eine Erneuerung der Philosophie. Reclam, Stuttgart.
- Putnam, H. (2002). *The Collapse of the Fact/Value Dichotomy and Other Essays*. Harvard University Press, Cambridge/Mass.
- Putnam, H. (2004). Ethics Without Ontology. Harvard University Press, Cambridge/Mass.
- Reiss, S. (2000). Who Am I? The 16 Basic Desires That Motivate Our Actions and Define Our Personalities. Berkeley Books, New York.
- Robbins, L. (1935). *An Essay on the Nature and Significance of Economic Science*. MacMillan, London, 2nd.rev. edition.
- Rorty, R. (1998). Putnam and the Relativist Menace. In Rorty, R., editor, *Truth And Progress Philosophical Papers Vol. III*, pages 43–62. Cambridge University Press, Cambridge/Mass.
- Samuelson, P. (1961[1947]). Foundations of Economic Analysis. Harvard University Press, Cambridge/Mass.
- Schäfer, T. (1995). Reflektierte Vernunft Michel Foucaults philosophisches Projekt einer antitotalitären Macht- und Wahrheitskritik. Suhrkamp Verlag, Frankfurt/Main.

- Sen, A. (1985). Commodities and Capabilities. North-Holland, Amsterdam.
- Shweder, R. (1991). *Thinking Through Cultures: Expeditions in Cultural Psychology*. Harvard University Press, Cambridge/Mass.
- Skinner, B. (1953). Science and Human Behavior. MacMillan, New York.
- Swoyer, C. (1982). True For. In Krausz, M. and Meiland, J., editors, *Relativism: Cognitive and Moral*. University of Notre Dame Press, Notre Dame.
- Swoyer, C. (2003). Relativism. Stanford Encyclopedia of Philosophy, http://plato.stanford.edu/entries/relativism.
- Tomasello, M. (1999). *The Cultural Origins of Human Cognition*. Harvard University Press, Cambridge/Mass.
- Wadman, W. (2000). Variable Quality in Consumer Theory. M.E.Sharpe, Armonk, New York.
- Wahba, M. and Bridwell, L. (2002). Maslow Reconsidered: A Review of Research on the Need Hierarchy Theory. In Cooper, C., editor, *Fundamentals of Organizational Behavior Vol.I*, pages 42–67. Sage Publications, London.
- Walras, L. (1954[1926]). *Elements of Pure Economics*. George Allen and Unwin, London.
- Warke, T. (2000). Mathematical Fitness in the Evolution of the Utility Concept from Bentham to Jevons to Marshall. *Journal of the History of Economic Thought*, 22(1):5–27.
- Weber, M. (1988). *Gesammelte Aufsätze zur Wissenschaftslehre*. J.C.B. Mohr (Paul Siebeck), Tübingen, 7.aufl. edition.
- Wilber, C. (1998). Economics and Ethics. In Davis, J., Hands, W., and Mäki, U., editors, *The Handbook of Economic Methodology*, pages 138–142. Edward Elgar, Cheltenham/UK.
- Williams, B. (1986). *Ethics and the Limits of Philosophy*. Harvard University Press, Cambridge/Mass.
- Wilson, E. (1998). Consilience The Unity of Knowledge. Alfred Knopf, New York.
- Wilson, N. (1959). Substances without Substrata. Review of Metaphysics, 12:521–539.
- Witt, U. (1987). *Individualistische Grundlagen der evolutorischen Ökonomik*. J.C.B.Mohr (Paul Siebeck), Tübingen.
- Witt, U. (1991). Economics, Sociobiology, and Behavioral Psychology on Preferences. *Journal of Economic Psychology*, 12:557–573.
- Witt, U. (2000). Genes, Culture, and Utility. Papers on Economics & Evolution #0009, Max Planck Institute of Economics, Jena.
- Witt, U. (2001). Learning to Consume A Theory of Wants and the Growth of Demand. *Journal of Evolutionary Economics*, 11:23–36.
- Witt, U. (2003a). Economic Policy Making in Evolutionary Perspective. *Journal of Evolutionary Economics*, 13:77–94.

- Witt, U. (2003b). Evolutionary Economics and the Extension of Evolution to the Economy. In Witt, U., editor, *The Evolving Economy Essays on the Evolutionary Approach to Economics*, number 1, pages 3–34. Edward Elgar, Cheltenham/UK.
- Witt, U. (2004). Animal Instincts and Human Sentiments On the Origin and Evolution of Economic Institutions. Unpublished Discussion Paper.
- Witt, U. (2005). From Sensory to Positivist Utilitarianism and Back The Rehabilitation of Naturalistic Conjectures in the Theory of Demand. Papers on Economics & Evolution #0507, Max Planck Institute of Economics, Jena.
- Wong, D. (1984). Moral Relativity. University of California Press, Berkeley/California.
- Wong, D. (1986). On Moral Realism without Foundations. *The Southern Journal of Philosophy*, 24 (Supplement):95–113.
- Wong, D. (1995). Pluralistic Relativism. *Midwest Studies in Philosophy*, 20:378–399.
- Wuketits, F. (2000). Warum uns das Böse fasziniert. S.Hirzel Verlag, Stuttgart/Leipzig.