FACTS AND VALUES – A USEFUL DISTINCTION

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Ilkka Niiniluoto

University of Helsinki

Pragmatism started in the late 19th century as a philosophical school which gave special prominence to the notions of action and practice. Charles S. Peirce, with his subtle conceptual distinctions, became later a hero of analytic philosophy and semiotics, while the neopragmatists of the late 20th century have admired the "naturalist" style of William James and John Dewey in questioning various dualisms - e.g., matter and mind, nature and culture, object and subject, theory and practice. The new era of pragmatism was started in 1951 with W. V. O. Quine's rejection of the analytic - synthetic distinction which served as a cornerstone of both neo-Kantianism and logical empiricism. The dichotomy of facts and values has been sharply attacked by Hilary Putnam, especially in the recent book *The Collapse of the Fact/Value Distinction* (2002) (cf. Putnam, 1981, 1994). Putnam's thesis of the entanglement of facts and values has been defended also by Sami Pihlström in *Pragmatic Moral Realism* (2005), as a part of his project of "naturalizing transcendental philosophy".

In this paper, I assess the Putnamian entanglement thesis.[1] By formulating "value constructivism" as a position that should be attractive for a pragmatist, I argue that there are many interesting interconnections between facts and values.[2] At the same time, it turns out that the division of facts and values is in many ways a highly useful conceptual distinction with ontological, semantical, and epistemological implications. Indeed, the ability to distinguish facts and values in many contexts is indispensable for the proper understanding of the demands and conditions of human conduct.

The Pragmatist Background

The classical pragmatists did not develop any common approach in ethics, as can be seen by a brief survey of their main ideas.

For C. S. Peirce, ethics is (together with aesthetics and logic) a normative science (*CP* 1.191). As a branch of ethics, "practics" studies the relations of human actions to an ideal (*CP* 1.573). The task of "pure ethics" is to study the *summum bonum* (*CP* 5.433). Moral value is a subcategory of aesthetic value. On the basis of his evolutionary metaphysics, Peirce concluded that the ultimate aim of human life is "to further the development of concrete reasonableness" (*CP* 5.3). Scientific inquiry is an important way of participating in such development.

William James linked ethics and beliefs in his essay "The Will to Believe" (James, 1897). He emphasized cases where "faith in a fact can help create the fact". In *Pragmatism* (1907), he concluded that truths (just as health and wealth) are "made" in the course of experience or an idea becomes true in its verification process. Truth is "one species of good": "an idea is 'true' so long as to believe in it is profitable to our lives". In the essay "The Moral Philosopher and the Moral Life" (James, 1897), James argued that the words 'good', 'bad', and 'obligation' cannot be "explained by any abstract moral 'nature of things' existing antecedently to the concrete thinkers themselves with their ideals". The essence of good is "the capacity to bring happiness" or "to satisfy demand". In the attempt to find "an equilibrium of human ideals" where the maximum number of demands are satisfied, ethical science must be like physical science in its readiness to "revise its conclusions from day to day".

According to John Dewey's instrumentalism, the common task of logic, scientific inquiry, and ethics is to help people to make choices and solve problems. In *Reconstruction in Philosophy*, he argued that moral principles are "intellectual instruments for analyzing individual or unique situations" (Dewey, 1921, p. 173). In *Theory of Valuation* (1939), Dewey treated values as natural facts in the world: we can study empirically matters-of-fact that concern the "valuations" (the acts of prizing and appraising) made by human beings in various contexts relative to their desires and interests. Statements about such actual acts are "valuation-propositions". The presentation of such an proposition may involve a norm to the effect that such a value should be respected in future action. However, we should not assume that there is some fixed supreme end. In solving problems of choice, it is important to raise

the question whether the things sustain the relation of means to ends. The distinction between means and ends is not absolute, since the ends may serve as means to further ends. Moreover, the ends may also be appraised: for example, an end is a "bad" one if its achievement requires too much time, energy, and inconveniences. Dewey added that, besides the objects of actual desires, there are also "ends-in-view" or "plans" which function as "directive means". The study of such ends-in-view and their future accomplishment is a significant task of scientific inquiry.

Distinctions and Dichotomies

Putnam (2002), p. viii, starts his book with a warning that, once separated from each other, facts and values could not any more "meet" each other. This argument is not very persuasive, since formal distinctions allow that the conceptually distinguished things always exist in reality together (e.g., matter and form in Aristotle's metaphysics, length and weight of a physical body). Thus, it is possible to conceptually distinguish facts and values, but maintain that objects may have at the same time factual and value properties, or that factual beliefs and evaluations may co-exist and interact in human beings.

Putnam goes on to acknowledge that in some contexts it is useful to distinguish factual and evaluative judgements, but "nothing metaphysical" follows from such a F/V distinction (ibid., p. 19). So a distinction should not be "inflated" into a "dichotomy" or a "dualism" (ibid., p. 9) which attempts to give an absolute and exhaustive classification of all judgments (cf. Hookway, 2008).

Putnam proceeds to give a criticism of his former teachers Rudolf Carnap and Hans Reichenbach. As logical empiricists, Carnap and Reichenbach were *non-cognitivists* who refused to take ethical and normative judgments as genuine meaningful propositions with truth values. Carnap's position was close to *emotivism* which treats ethical statements as expressions of emotions. For Reichenbach (1951), normative ethics is a remnant of old metaphysics and should be excluded from "scientific philosophy". Instead, according to his *prescriptivism*, values and norms should be understood as directives, imperatives or prescriptions of action.

It is interesting and even amusing to note how closely Putnam's treatment of the F/V distinction still follows the example of his teachers. Putnam approaches the issue by discussing terms and judgments - thereby using what Carnap called the "formal mode" instead of the "material mode". This is related to Putnam's critical attitude towards ontology

(cf. Pihlström, 1996). His aim, developed further in *Ethics without Ontology* (2004), is to defend a view of ethics which licences "objectivity without objects".

Are Facts and Values Symmetrical?

Putnam's (2002) main attack is against a dualism where facts are "objective" and values are "purely subjective":

(1)   Factual judgments can be objectively true and justified, while evaluative judgements are subjective and without truth-value.

If combined with a realist account of factual knowledge, non-cognitivist views of ethics are committed to the anti-symmetry thesis (1). But how should a pragmatist deny (1)? One answer, which receives some support from the great champions of American pragmatism, is to state that both facts and values can be objects of fallible and critical inquiry and knowledge (cf. Misak, 2000). Thus, the symmetry thesis against (1) could be formulated by

(2)   Factual judgements and evaluative judgments have the same status with respect to truth-values and justification.

However, principle (2) as such is not yet sufficient to express the pragmatist position, since it is accepted by virtually all variants of ethical cognitivism - including the *Platonist* doctrine of transcendent ideas, G. E. Moore's *ethical intuitionism* (i.e., the human capacity to know by intuition non-natural ethical properties), and *naturalist reductionism* (e.g., the definition of values in terms of physical and mental properties like needs, satisfaction and happiness). An example of reductionism is evolutionary ethics which defines goodness in terms of the promotion of one's position in the struggle for existence. Even though a naturalist reductionist (unlike Plato and Moore) can be a fallibilist in epistemology (see Boyd, 1988), *moral realism* makes questionable metaphysical assumptions about the existence moral properties and facts independently of human beings and their activities. I can therefore agree (see Niiniluoto, 1999, p. 233) with the pragmatist position of Putnam (2002) and Pihlström (2005) in the rejection of these forms of moral realism.

Reductionist approaches have to face also G. E. Moore's forceful argument about the "naturalist fallacy". For example, if good is defined as that which satisfies human needs, we may still ask: is it good to satisfy such needs? While some formulations of James may seem

to have difficulties with this argument, Dewey sharply criticized utilitarianism, since it never questioned "the idea of a fixed final and supreme end" (Dewey, 1921, p. 180). Further, it should be noted that reductionist naturalists usually apply the non-pragmatist correspondence theory of truth.[3]

An important addition about the principle (2) is that *moral subjectivism* may also satisfy this condition. For a subjectivist, evaluative judgments are true or false statements about the valuations of a person: 'x is good' is synonymous with 'I like x' or 'I appreciate x'. Similarly, according to subjectivist epistemology, 'p is true' means that 'I believe that p'. Among the classical pragmatists, F. C. S. Schiller advocated such subjectivism - or "humanism", as he called it - with respect to facts and values. Thereby he supported the symmetry thesis (2) in the subjective sense. Thus, (2) does not deny the thesis (1) in the right way. James observed that this kind of moral subjectivism leads to problems with relativism, when all persons make their own ethical demands. Putnam also wishes to avoid moral relativism (cf. Putnam, 1994) - and therefore opts for a position which achieves "objectivity without objects" (Putnam, 2004).

Putnam's (2002) solution appeals to his *internal realism*. The epistemic account of truth as "ideal rational acceptability" can be symmetrically applied to all kinds of statements, including factual and evaluative ones. Such a consensus is objective, as it is achieved by a community of investigators, and it cannot be false, as it is characterized by ideal conditions (cf. Putnam, 1981).[4] This approach has many much debated problems (cf. Niiniluoto, 1999, Ch. 4.6). What guarantees that the objective consensus is actually reached? If the consensus is reached, how could we know that it is ideal - without a vicious circle? Putnam himself has given up his earlier "anti-realist" stance by allowing that there may be "recognition-transcendent" truths about the world, but - without specific arguments - he still thinks it possible that such truths are not found in ethics (Putnam, 2002, p. 108).

Another tenet of internal realism claims that objects and facts are relative to our conceptual frameworks. If this is the case, facts presuppose human linguistic and conceptual practices. In particular, the acceptance of scientific "truths" is value-laden, as it is based upon such values as coherence, simplicity, and predictive success (ibid., p. 32).[5] So the argument seems to proceed from the premise that values and norms are epistemologically indispensable for the assessment of knowledge claims to the ontological conclusion that "without the indispensable commitment to values and norms there is no world and no facts" (Bernstein, 2005). Pihlström (1996) generalizes this view by arguing that the world, or its ontological

structure, is always relative to human practices. He takes distance from the view that ethical thought can be understood as a form of "inquiry", which seeks answers "lying out there" (Pihlström, 2005, p. 28) - so that the symmetry thesis (1) is also questioned. But the symmetry thesis is may taken to hold in the following form:

(3)   Facts and values have the same status with respect to human practices.

Indeed, facts "do not exist in a world in itself apart from our practices" (Pihlström, 2003a, p. 307). The world "for us" is always "subordinated to a value-laden framework of conceptualization", so that it is a "human-made" world "subjected to our natural practice of making value judgments, of considering things good or bad from the point of view of our lives" (ibid., p. 238). Hence, "like science and ethics, facts and values are inseparably entangled in our practice-laden lifeworld" (ibid., p. 237).

Non-symmetry of Facts and Values

Thesis (3) is as such insufficient to prove the entanglement of facts and values, since it may be feasible to separate the human practices of establishing and evaluating facts. A more careful analysis of the situation is needed to settle this F/V question.

Thesis (3) itself can be questioned as well. A critical realist may acknowledge that the world can be conceptualized and described by alternative frameworks. This typical feature of our everyday and scientific practices does not imply that the notion of truth is epistemic, since one can apply the Tarskian correspondence theory of truth relative to each such conceptualization of the world (see Niiniluoto, 1999, p. 223). Further, any "naturalist" philosopher who takes the results of science seriously has to admit that there was a world already billions of years before the evolution of human beings with their minds, languages and cultural practices. This pre-human world was not a chaos but a causal lawful process with objects and facts independently of human mentality (ibid., p. 40).[6] For example, it has been a fact for billions of years that water is H_2O, even though the concepts of 'hydrogen' and 'oxygen' and the idea of chemical composition were discovered by human scientists only recently.

Using Kantian terms, Pihlström admits that the world is not literally or causally "constructed" by human beings, but rather "transcendentally constituted" (Pihlström, 2003, p. 261). But whatever is meant by the "transcendental perspective", it should not be assumed to

be "superhuman" (ibid., p. 238) or a "God's-Eye-View" (ibid., p. 167) which licences access to the history and the present state of the entire universe (cf. Niiniluoto, 2008). Indeed, the assumption of such superhuman transcendental perspective would an instance of bad metaphysical realism: the world is always more than any human conceptualization is able to unveil and capture for us (Niiniluoto, 1999, p. 223). Hence, a naturalist pragmatist should agree with the ontological realist that the "world for us" is only (or gives knowledge only about) a fragment of the world, which is inexhaustible and full of objects and facts that have not yet been conceptualized and reached (ibid., p. 219). It is precisely for this reason that we have today and tomorrow the challenge of science and its fallible practice of inquiry.

To express my conclusion in Popper's terms, let us distinguish *World 1* (physical objects and processes), *World 2* (mental states of individual human minds), and *World 3* (artefacts and other cultural and institutional products of human social action) (ibid., p. 23).[7] World 1 is ontologically independent of World 2, even though we may by our concrete actions bring about facts in World 1 (e.g., by moving stones, cutting down trees).[8] Some of the facts in World 1 are still unknown today, and may remain unknown, while some of them have been "established" by scientific inquiry. On the other hand, the pragmatists deny that values as practice-laden could be ontologically independent of human activities in this sense. Hence, we have the partial non-symmetry result:

(4)   Facts in World 1 and values do not have the same status with respect to human practices.

Values in World 3

The notion of World 3 allows that at least part of reality is human-made. World 3 does not include Platonist ideal objects. Instead, it includes material artefacts with cultural properties (e.g., coins with economic value, paintings with aesthetic value), social institutions (e.g., customs, societies, cities, banks), and abstract entities (e.g., numbers, sets, concepts, propositions, musical works). Such abstract entities have a temporal history - they are created and may be destroyed - but, unlike their documentations in World 1 and manifestations in World 2, they do not have spatial positions. It is natural to "locate" values as social constructions in World 3. Thus, we may propose as a partial explication of (3):

(5)   Facts in World 3 and values are symmetrical with respect to human practices.

In my view, this preliminary conclusion is important for our understanding of the nature of human values.

The possibility that values belong to World 3 allows us to avoid the question whether values belong to World 1 or World 2. We have seen that this misleading question leads to the unacceptable alternatives of reductionist moral realism and moral subjectivism. Putnam (1995, 2002) sometimes appeals to James's doctrine of "radical empiricism" which questions the separation between "thing-stuff" and "thought-stuff" - and thereby denies the distinction between World 1 and World 2. However, in this form, the doctrine of radical empiricism is a strong ontological view - and if one attempts to avoid "metaphysical" implications of a F/V dualism (cf. (1)), one should not try to collapse this distinction by metaphysical premises.

Dewey argued against the "tragic" consequences of the dualism of "the material, the mechanical, the scientific" and "the moral and the ideal" (Dewey, 1921, p. 171). This is directed against Platonist treatments of ethics. For the same reason, Dewey opposed the distinction between instrumental and intrinsic values (ibid., p. 177), since for him the notion of intrinsic value appears to involve "the old way of thinking" about "a fixed final and supreme end" (ibid., p. 180). For Dewey, "reflective morality demands observation of particular situations, rather than fixed adherence to a priori principles" (Dewey and Tufts, 1932). The proposal to understand values as human-made constructions in World 3, open to further revision by argumentation, is in harmony with this Deweyan attack on a priori fixed principles of morality.

Pihlström accepts the notion of the human-made World 3 but claims that no clear separation of the Popperian three worlds can be made (see Pihlström, 1996, p. 259; see also Pihlström, 2008). Thus, again a more careful analysis of the status of values is needed. Is it feasible to separate non-evaluative physical properties (in World 1) and evaluative cultural properties (in World 3) of artefact? And is it likewise feasible to distinguish between descriptive facts and evaluative facts about World 3 entities? A proposal favouring positive answers to these queries is presented in the next section.

Value Constructivism

Let us consider in more detail the structure of typical valuations. The basic form of *value propositions* is the following:

(6)   X values A

(7)   A is valuable for X,

where the subject X is a person, group, community, or culture, and the object A is a thing, fact, or act. In the case of moral values and norms, (7) can be expressed by

(8)   A is good/right for X.

Statements of this form have truth-values, and they can be studied empirically by investigating the attitudes and behaviour of the agent X. If X is a community, we can study the claim (7) by seeing what kinds of social group attitudes and activities are prevailing within X. In addition to persons and communities X, it is also possible to speak about valuations relative to various types of value systems V, defined by written public documents and doctrines (e.g., Stoic ethics, Christian ethics):

(9)   A is good/right according to the value system V.

In this case, the validity of (9) can studied by hermeneutical methods of interpretation common in the humanities and theology.

Even though *relativized* value judgments of the form (6) - (9) have truth values, as statements about facts in World 2 and World 3, and can be objects of descriptive and interpretative inquiry, *absolute* value statements of the form

(10)   A is good/right

are incomplete statements and lack truth values. This conclusion agrees with non-cognitivism about absolute ethical judgements. The contrast to factual statements p (e.g., 'Water is H_2O') is clear: the claim

(11)   It is the case that p

has truth conditions independently of any relativization to an epistemic context (see Niiniluoto, 1999, p. 241).

The next step is to observe that the proposition (7) is typically based upon the fact that object A has some properties F which are *values* for the agent or community X:

(12)   A is F and F is a value for X.

The factual aspect 'A is F' of a valuation thus involves the claim that A has some natural properties or dispositions F: strawberries are sweet and nutritive, presidents are honest and wise, etc. Such claims can be objects of inquiry - they are fallible, so that we can be mistaken about their truth.[9] Thus, (12) indicates that valuations are not arbitrary and subjective: the value of an object A depends objectively on its properties F. But the value aspect 'F is a value for X', or the status of F as a value for X, is not a natural property of A itself. Rather, sweetness, honesty, and wisdom as values are created and sustained through human practices and social activities, and they can vary in different human cultures or moral systems. Values are thus social artefacts in the human-made Popperian World 3. Except some dogmatic value systems, typical among religions, they can be questioned and revised by members of human communities.[10]

The values of an agent may be hedonistic (happiness), vitalistic (health), economic (wealth), political (power, liberty, peace), social (love, friendship, equality, justice), epistemic (knowledge), aesthetic (beauty), religious (holiness), and ecological (sustainability, biodiversity). In choice situations involving alternative actions, the agent usually has to balance between the relevant values. The values may also depend on each other, according to the beliefs of the agent. We may thus define an *axiological system* as a triple <V,B,I>, where V is a hierarchical ordering of intrinsic values (valuable in themselves without relation to other aims), B is a system of beliefs, and I the set instrumental values (values serving, according to B, as tools for reaching the intrinsic values V) (cf. Niiniluoto, 1999, p. 290). Such an axiological system may be more or less implicit in an agent's behaviour and preferences, but it may also be a codified formulation of the values of some community (see judgments of the form (9)). Besides traditional religions, such ethical codes and value profiles are today defined by professions and business firms. It is important to add that, for an agent X, an object A may have at the same time both intrinsic value and instrumental value.[11]

The analysis (12) suggest interesting forms of interaction between facts and values.

Suppose that I am already aware of my personal preferences, so that I know what I like. If sweetness is a value for me, I can by empirical experience identify the domain of those things that I value (e.g., sugar, honey, ripe strawberries and cloudberries, etc.). More generally, in a situation, where the evaluative part of (12) has been fixed by public criteria in our community, we can empirically prove what objects are valuable for us.[12] Further, in an axiological system <V,B,I>, scientific research can change the beliefs B and there modify the pattern of instrumental values I. The history of medicine, which aims to promote health, is full of examples of this sort. Research can also show that some intrinsic values V are utopian, as they are unattainable in the light of B (cf. Niiniluoto, 1999, pp. 173-174).

The analysis (12) shows that facts and values interact in an interesting manner in *thin value judgments*. But it also shows that they can be separated from each other in a clear way - as two layers of a complex judgment. The same analysis applies to *thick value judgements* which Putnam (2002) mentions as examples of the F/V entanglement. Consider, for example, the claim that Ivan is cruel. It would be awkward to claim that 'cruel' is a purely descriptive term without a moral dimension. But again, on the model of (12), attributions of cruelty have a first-order cluster of factual features and dispositions (Ivan is violent, Ivan has killed his own son, etc.) and a second-order evaluative part (violence and killings are morally disapproved). Similar analysis applies to other thick value judgements like 'The Baltic Sea is polluted': the water contains such and such chemical substances and micro-organisms, and their amount exceeds a threshold value that we find unacceptable.

The F/V distinction can be illustrated also in the context of *technology assessment* (TA) (see Niiniluoto, 1997). Technological tools (like knives, cars, satellites, guns, and drugs) can be assessed by their intended functions and their unintended side effects. As artefacts, they typically have physical properties in World 1, and the task of ascertaining these properties belongs to the relevant scientific experts. For example, how many horse powers does an engine possess? What is the nutritive power of a new milk product? Such properties determine the ability of the tool to realize its intended function. This ability can be called its *effectiveness* or *instrumental goodness* (see von Wright, 1963b). TA is also interested in the question how *economical* the tool is relation to the costs of its production and use, and the benefits and expenses due to its use. Other dimensions of TA include *ergonomy* (relation of artefacts to their users, especially the bodily and mental health of users), *ecology* (relation of artefacts to environmental conditions), and *aesthetics* (the beauty of artefacts, aesthetic experiences). Finally, TA may always raise the *ethical* question

whether it is good or bad that human beings have the new powers given by technological tools. For example, an instrumentally good (i.e., effective) weapon may be evaluated as ethically bad. In this sense, technology is thoroughly value-laden. But we can distinguish the physical properties of a tool in World 1, its relations to human mentality in World 2, and its cultural properties in World 3.

The case of social technologies (like traffic regulations, democratic governments, hospitals, prisons) is more complex, since their actual instrumental goodness depends on human practices in World 3. Here we have to make distinctions within World 3. But again one can distinguish descriptive World 3 facts about such social institutions (e.g., The Philosophical Society of Finland was established in 1873, it has 500 members in 2008, and according to the statutes its aim is to promote philosophical activities in Finland) and then judge separately their moral value by our ethical considerations (e.g., are the aims and actual activities of the Society ethically valuable?). It is important to see that descriptive facts about World 3 - even though they are genetically value-laden in the sense that their construction has involved human goals and valuations - are public and objective, and thereby value-neutral as research objects: all scholars, even those who morally disapprove them, have to agree about their existence.

I conclude that value constructivism, with its applications to thin and thick ethical terms and technology assessment, gives the best kind of practical counterargument to the inseparability thesis: it shows *how* this distinction can be made in important types of situations.

Is and Ought

According to Pihlström, responsible pragmatist philosophers "refuse to make any sharp distinction between the way world is (facts) and the way it should be (values)" (Pihlström, 2003a, p. 237). This is contrary to *Hume's Guillotine* which distinguishes between "is" and "ought": from the way the world *is* one cannot logically derive how it *ought* to be. In my view, the acceptance of Hume's Guillotine is a precondition for the proper understanding of responsible human action.

Suppose you have good reasons to believe that F is the case. Such a fact may be value-laden in the sense that it has been brought about by intentional actions and political decisions (e.g., the Finnish students have free education) or it may an unintended consequence of human behaviour and circumstances (e.g., the Finns have an exceptionally

large number of cardiologic diseases). Should a pragmatist (or any other citizen) conclude that F ought to be the case? Of course not, as the validity of fact F is open to further ethical concern. If one approves F, then one has a motive of acting so that F is preserved. If one disapproves F, then one has a motive of acting so that F is changed. In this way, values guide our actions.

Goal-directed action can be modelled by practical reasoning. In a *practical syllogism*, you wish to achieve a goal G, you believe that doing D is necessary for achieving G, and you conclude by starting to do D. More generally, your beliefs B may concern the causal connections between your possible actions and their consequences. This kind of reasoning can be expressed by conditional statements of the form:

(13)   If you want G, and you believe that you are in situation B, then you ought to do D.

Such statements are called *technical norms* by Georg Henrik von Wright (1963a), and their consequents are *technical oughts*. As principles of instrumental rationality, technical norms express relations between means and ends. Technical norms have truth values, and their validity is open to empirical inquiry especially within the so called applied sciences (see Niiniluoto, 1993). Some technical norms can be justified by mathematical arguments, as shown by the tradition of *Operations Research*.[13]

As variants of practical reasoning, formal models of human decision making include goals, beliefs, alternative actions, and decisions. Belief in states of nature express your expectations how alternative actions lead to different consequences, and the goals are evaluated by your preference ranking. Bayesian *decision theory* recommends the action which has maximal expected utility. The F/V dichotomy is presupposed here in the distinction between factual beliefs and value preferences. Even in those models, which start from a single preference ordering between alternative actions, one can construct separately the subjective probability function (expressing degrees of belief) and a utility function (expressing personal valuations) (see Savage, 1954). *Game theory* generalizes the decision problem to situations involving conflicts of interests between two or more parties. The relation to technical norms of the form (13) is again evident. In seeking optimal solutions, game theory is not descriptive, but rather conditionally normative: "It states neither how people do behave nor how they should behave in an absolute sense, but how they should behave if they wish to achieve certain ends" (Luce and Raiffa, 1957, p. 63).

These treatments of technical norms and decision making are compatible with the non-cognitivist analysis of absolute normative statements of the form

(14)   You ought to do D!

As imperatives or prescriptions, such statements lack truth values (cf. (10), but they are not "subjective" in the sense of (1).[14] Hume's Guillotine is valid, since such statements without truth values cannot deduced from factual statements. This type of non-cognitivism does not in any way diminish the practical importance of prescriptions in human life, and does not preclude their analysis in action theory and deontic logic (see.von Wright, 1963a, 1985).

The Swedish philosopher Ingemar Hedenius introduced in 1941 an important distinction between two readings of legal normative statements (see von Wright, 1963a, p. 105). A statement of the form 'Don't kill!' can express or enunciate a norm which prescribes that killing is forbidden. But it can also be used to give information about the fact that in some community there are regulations or laws which prohibit killing and order some sanctions to those who do not obey this rule (cf. statements of the form (8) and (9)). Such a social fact about the legal order accepted by a legal community belongs to World 3, and descriptive truths about it can be established by legal scholars (see Niiniluoto, 1985).[15] So the same sentence may have a prescriptive and a descriptive reading. Von Wright (*loc. cit.*) points out that even the same token of an ought-sentence can sometime involve both meanings at the same time, but this possibility "does not entail that they could not be logically sharply distinguished". I think this shows convincingly how misleading Putnam (2002) was in his way of posing the F/V issue as a question about the dualist classification of judgements.

To understand values and norms as element of the socially constructed World 3 helps to understand their double role - individual and communal - in human action. As Reichenbach (1951), p. 276, observed, "descriptive ethics" which informs us about the ethical habits of various people and social classes is "a part of sociology" and "not of a normative nature". For example, knowing that eating pork is forbidden for the Jews and drinking alcohol is forbidden in some Arab countries does not influence my behaviour. But knowledge about the legal and moral norms of my own community makes a difference. The French sociologist Emile Durkheim argued in 1894 that social facts are "our own making" but at the same time they are characterized by "a coercive influence" to the individual consciousness

and behaviour (see Niiniluoto, 2006, p. 66). Thus, morality binds us through a social pressure from our own community. From the communal perspective, moral principles are based upon a "social contract" which promotes social cohesion and trust between its constituents. On the other hand, morality involves always a personal commitment, as Pihlström (2005) rightly emphasizes: we are free to reinterpret and revise the social reality in World 3, including the moral values prevailing in our community.

Values and norms guide our goal-directed responsible action in two ways: by restricting means and by proposing ends. It is not the case that ends justify means: it may be the case that robbing a bank would be the quickest way of improving my financial situation, but this option is excluded, since I think that stealing is morally wrong. My values also provide me the goals of my action: I am morally committed to promoting the intrinsic values of my value system (e.g., seeking truth in science, preserving natural beauty, supporting social justice). This commitment should not be reduced to technical reasoning - for example, do this, in order to receive the praise of your neighbours, or don't do this, if you wish to avoid the legal sanctions. My reason in acting in favour of my values may be based upon the conviction that these goals are right for me - they are my moral duties. I can also consider these goals with my fellows in a critical value discourse. But such a discourse is a practical philosophical activity, not a way of proving or establishing that the goals are the right ones in some absolute sense.

The Frankfurt School, especially Max Horkheimer (1947), attacked Dewey for restricting reason to instrumental rationality - Max Weber's *Zweckrationalität*. Indeed, according to Dewey's *Logic* (1938), p. 9, rationality is "an affair of the relation of means and consequences". On the other hand, Reichenbach (1951), pp. 321-322, hoped that the talk of "scientific ethics" by the pragmatist philosophers - obviously he had Dewey in mind - does not really mean more than the "establishment of implications between ends and means". According to Reichenbach, the choice of goals involves a volitional act. Philosophy and science can give advice to men, but they cannot solve such problems of volition.

Reichenbach receives support from the fact that attempts to prove some ends of human action from empirical premises as a rule collapse into arguments involving technical oughts or instrumental rationality. I give here one example.[16] Appealing to Dewey's project of ethical inquiry, Casebeer (2003) argues that "the sciences can be used to derive new fundamental norms". His examples include developing deep friendships, alleviating the sufferings of others, structuring social organizations liberally and democratically, and

supporting sociability (ibid., p. 159). I am not convinced, since such empirical derivations include hidden value premises, so that their real content can be expressed by technical norms. Thus, the advice on developing a few deep friendships appeals to the satisfaction of historically rooted "deep biological demands" and potential "valuable sources of feedback for personal development" (ibid., pp. 141-142).

Reichenbach's remark is a healthy note against the "scientist" idea that science alone could tell people what they ought to think and desire. Richard Rorty draws a horror picture of Enlightenment as transforming scientists to a sort of priests (Rorty, 1989, p. 52). This picture would be in conflict the ideals of democracy which Dewey was so strongly devoted to support in his career. It is also clear that Dewey was not trying derive intrinsic values by scientific inquiry, since he wished to abolish the instrumental - intrinsic distinction.

We have already seen how the relations of inquiry and values can be understood in flexible and fallible ways. Empirical research can help to identify things that are valuable for us. Research can tell us what valuations are common and what norms prevail in our society. Research helps us to make rational decisions and plans conditional on our moral and other values. Inquiry promotes the search of effective means to our important ends, and allows us to criticise some ends as unrealizable or too costly by available means. Inquiry gives structure to our system of instrumental and intrinsic values. Further, as emphasized by Putnam in his discussion of Dewey (see Putnam, 1994, pp. 200-201), when our action leads to temporary ends, they serve as means to further consequences by guiding our action. In this sense, action by moral premises (together with factual beliefs) gives us a kind of pragmatic test of their acceptability, since it gives us a historical record of the (sometimes surprising) consequences of their adoption.[17] For example, prohibition laws denied the trade and consumption of alcohol in many countries in the 1920s, starting from the premise that drinking is morally wrong. However, it turned out that this legislation led to the increase of criminality and other evils, and the laws were abolished and more liberal policies were adopted. Other examples could include social experiments with different models of social and political justice (e.g., the defeat of socialism, the success of Nordic welfare state). In this way, values are constantly tested when we observe the social consequences of their implementation in human practice.[18]

We have also identified several ways in which science is relevant to future, which was the core of Dewey's project of scientific inquiry about future "ends-in-view". Scientific research can make predictions about future courses of events and thereby helps us to prepare

for new opportunities and threats. Operations Research and decision theory consider alternative actions relative our beliefs and aims. *Futures studies*, which studies the probability and desirability of alternative scenarios, can be added to this list (see Niiniluoto, 2001). What is remarkable about these new important methodologies is that they all rely on the distinction between facts and values - or between beliefs and aims.

So is there any room for value rationality - Weber's *Wertrationalität*? It is too much to demand with Horkheimer (1947) that reason should be capable of "determining the ultimate aims of life". But one should not depreciate the significant role of philosophy: *metaethics* helps to clarify what is meant by values and value judgements, *value inquiry* articulates various types of human values, and *value discourse* makes explicit our own personal commitments to human values. These philosophical conceptions are useful in moral education. Further, *practical ethics* studies real-life ethical problems (e.g., abortion, euthanasia, health, war, animal rights) by analysing the structures of moral arguments and their as a rule hidden factual and value premises (see, e.g., Bayles and Henley, 1989).[19] Even here the F/V distinction is useful, since it allows one to identify strategies in resolving disagreements about human conduct: it makes a difference, whether the disagreement concern facts or values or both.

Moral Relativism and Moral Progress

We have outlined above the position of value constructivism. Values are not collapsed into the physical World 1 or the subjective mental World 2, but rather they are parts of the human-made World 3. Our approach differs from the neopragmatist view in its emphasis on the viability of the fact - value dichotomy and the related Hume's Guillotine. We have seen how this allegedly untenable distinction and the related is - ought distinction can be made in various kinds of situations (e.g., thin and thick value judgements, technology assessment, decision making, game theory, futures studies, normative ought statements). Interaction between facts and values has been illustrated in many ways.

One remaining difference to Putnam's desire to find "objective ethics" and Pihlström's "pragmatic moral realism" arises with questions about moral relativism (cf. Pihlström, 2008; Niiniluoto, 2008). This issue can be illustrated by the historical remark that Westermarck's relativist treatment of morality as a psychological and social phenomenon agrees well with the view that moral values belong to the human-made World 3 (cf.

Niiniluoto, 1999, p. 235).

The Finnish philosopher and social anthropologist Edward Westermarck was a pioneer of empirical studies in morality. He proposed a naturalist programme of replacing normative ethics with the psychology and sociology of moral emotions. In his *The Origin and Development of Moral Ideas* (1906-08) he gave an evolutionary account of morality: ethics was born when the retributive emotions of moral approval and moral disapproval were transformed to impartial and disinterested judgements.[20] Westermarck observed that, as a matter of fact, there is a great variety and diversity of moral ideas in the human history: different times, cultures, religions, and nations have defined their moral values and codes in different ways. Such moral diversity can be studied in the social sciences, but philosophers have no way of establishing a unique system of moral values and norms. He concluded that one has to accept a *moderate* form of *ethical relativism* (Westermarck, 1932). He was also convinced that this kind of tolerance in ethical (and religious) matters has favourable consequences for the society. However, modest relativism does not imply that anything goes: evaluations based on emotions may involve irrational cognitive assumptions which can be studied, criticised, and rejected.[21] In particular, Westermarck himself attacked what he considered as inhuman aspects of the Christian ethics. So, in spite of his modest ethical relativism, Westermarck wished to uphold the notions of moral progress and regress.[22]

Value constructivism has led us to accept modest ethical relativism: moral statements of the form (8) or (9) always involve a relativization to some subject, auditory, community, or a system of values.[23] Absolute statements of the form (10) lack truth values. Still, imperatives of the form (14) may have an important role in our life. This view allows that our human lifeworld is laden with values to which we are committed, values are fallible and revisable elements of our social reality, and they guide our actions. In a free and open society we have to tolerate different value systems and be ready to reconcile between them through democratic processes of decision making. But I am not advocating radical cultural relativism which leaves everything as it is: rational value discourse across cultural barriers may invite others to share the values to which our community is committed. So we can understand the hope that some moral principles would be accepted by the whole of humanity - the Declaration of Human Rights by the United Nations in 1948 was a signpost of moral progress in this sense. Still, in our imperfect world, we are far from a universal commitment to joint moral ideals - even farther from them in practical conduct.[24] If morality has a human face, depends on human practices, and is not dictated by some superhuman religious authority,

stronger expectations of "absolute" or "objective truth" in the moral realm are philosophical illusions.[25]

      With these explications and arguments I venture to suggest that value constructivism should be an attractive position for pragmatists who take seriously the idea that values are human constructions.

Department of Philosophy
University of Helsinki

NOTES

1 For my assessment of Putnam's internal realism, see Niiniluoto (1999), Ch. 7. In my view, critical scientific realists share with pragmatists the basic ideas of *fallibilism* (all human knowledge is uncertain and revisable) and *conceptual pluralism* (the world can be approached and conceptualized by alternative linguistic schemes or conceptual systems). In this sense, critical scientific realism disagrees with what Putnam pejoratively calls "metaphysical realism" (the world has a unique fixed ready-made structure). On the other hand, critical scientific realism advocates the correspondence theory of truth and thereby disagrees with the epistemic characterization of truth in pragmatism and internal realism. For my reading of Peirce as critical scientific realist, see Niiniluoto (1984, 1999).

2 I have defended value constructivism, or the thesis that values are human-made entities in the Popperian World 3, since 1981. For a summary of this position, see Niiniluoto (1999), Ch. 8.2.

3 Another problem for reductionism is the so called "Hume's Guillotine" (see below). Casebeer (2003) suggests that Hume's and Moore's arguments against naturalist reduction and their endorsement of the normative - empirical distinction implicitly relied on the

analytic - synthetic distinction. I think this is mistaken. For a non-cognitivist, normative ought-statements lack truth values, while the analytic - synthetic distinction divides true statements into two classes (see Niiniluoto, 1999, p. 49). As Reichenbach (1951), p. 277, observed, if ethics were analytic knowledge, it would be "empty and could not tell us what to do".

4 A similar position about the "validity" of normative statements is defended by Jürgen Habermas in his "discourse ethics". According to Habermas (1990), valid norms are those accepted by an ideal community of investigators who share a commitment to communication and argumentation which is impartial, democratic, and free from coercion. Putnam (2002) complains that Habermas restricts this account to norms without including values as well.

5 Scientific realists agree that there is an "axiology of science" (cf. Niiniluoto, 1999, Ch. 6.2): the acceptance of scientific hypotheses is relative to such "epistemic utilities" as truth, accuracy, information, explanatory and predictive power, and simplicity. This is compatible with the demand that science should be *value neutral* or *value free* in the sense that the choice of its conclusions does not depend on personal or group interests, wishful thinking, religious and political views, or ethical values. It is precisely this kind of responsible value-neutrality which makes science a valuable human practice. Moreover, in cognitive decision making the distinction between beliefs and epistemic utilities is presupposed (see Levi, 1967). Dewey attacked the dualism of the scientific and the moral (Dewey, 1921, p. 171), but this was part of his campaign against the material/ideal dichotomy. Putnam acknowledges that scientific and ethical values were distinct for Dewey (Putnam, 1994, p. 174).

6 For a sharp criticism of the view that facts presuppose human languages, see Searle (1995). Searle points out that facts and true statements function causally in different ways.

7 Artefacts and social institutions are also the main elements of Searle's (1995) account of social reality.

8 Of course, we can also bring about facts in World 2 (e.g., I can make my friends happy).

9 In some cases of "value fetishism", it may seem that an object in itself is taken to be valuable independently of its properties. However, even in the examples of such sacred items

as totems and taboos, there are (typically mistaken) beliefs about their relations to some mythical or religious forces.

10 The analysis (10) can be compared to the treatment of valuations by C. I. Lewis (1946). According to Lewis, objects have factual value-qualities that can be studied empirically (cf. my F). These qualities make these objects inherently or instrumentally valuable. But the value of an object is always extrinsic, as it may conduce the realization of some intrinsic value-quality in experience. Thus, Lewis locates intrinsic values ultimately in the experienced World 2, while I place them in the public World 3.

11 For example, a work of art may be aesthetically valued for its own sake, but it may at the same time have monetary value in the economical art market. This observation is overlooked by those who wish to reject the distinction between intrinsic and instrumental values (cf. Dewey, 1921, p. 177).

12 For example, if the criteria for a democratic government are well defined, it is the task of political science to study what countries in the world are democracies. For us who appreciate democracy as a just political system, such empirical studies may tell about the moral progress of the world.

13 Operations Research, developed in the 1950s as a theory of problem solving and planning by Russell L. Ackoff and C. West Churchman, has an interesting historical background in the American pragmatist tradition of James and Dewey (cf. Niiniluoto, 1984, Ch. 11). On Churchman, see Putnam (1995), p. 13.

14 This position is against dualist (e.g., Platonism) and naturalist (e.g., natural rights and natural law) doctrines of normative cognitivism.

15 Empirical study of prevailing norms does not violate Hume's Guillotine, since they derive descriptive is-statements from other is-statements (von Wright, 1985).

16 Hookway (2008), p. 65, observes that from the factual proposition 'That object is an umbrella' one can derive a conditional imperative 'If the weather forecast predicts rain and you want to stay dry when you go out, you ought to take that with you'. He concludes that this provides "a quite strong sense in which the normative is implicated in the factual".

However, Hookway's conditional imperative is a typical instance of a technical norm in von Wright's sense, so that it belongs to the domain of instrumental rationality. In my view, a similar conclusion applies to "valid" norms in Habermas's (1990) sense: the democratic conditions of such a discourse already include ethical premises, so that the force of the conclusion can be written our as a technical norm.

17 As a logical empiricist, the Finnish philosopher Eino Kaila advocated a prescriptivist non-cognitivist view of moral statements. As a psychologist, Kaila was well aware of the deep emotional significance of morality, but he did not think that moral judgments have "real content". However, he suggested that value statements can be put to a "practical test" by seeing what results they have as motives of human action (see Kaila, 1943; Pihlström, 2003b, p. 518).

18 Have we finally justified the symmetry thesis (2) or (3) by the idea that both factual and evaluative hypotheses can be tested by human practice? In spite of some similarity, I think there is an important difference between such tests. A factual assumption is tested by seeing whether its observational or experimental consequences are true. A value premise is tested by seeing whether its consequences in action are acceptable to us relative to our (other) value commitments. Of course, a pragmatist may try to collapse this distinction, too (see Pihlström. 2003b, p. 518), but not without problems: when Einstein's theory of relativity was tested, the question whether light rays from the sun bend when they pass Mercury did not involve a value judgment.

19 See Pihlström (2005) for a critique of practical ethics. To me it seems that the pragmatist test of the value of practical ethics should be whether it helps to solve actual moral conflicts in concrete situations.

20 Westermarck's classical work is one of the historical sources of Dewey and Tufts (1932).

21 For example, xenophobia usually involves mistaken assumptions that "the other" are in some way different from us and threaten us.

22 Radical moral relativism is untenable, when it is evaluated by higher-order ethical principles (such as consistency and coherence).

23 Marxist doctrines accepted the social nature of morality, but they attempted to escape relativism by claiming that one of the perspectives - viz. that of the working class - is the correct one.

24 Hans Küng's ambitious project of "global ethics" declares laudable ethical principles like non-violence, solidarity, tolerance, and equality (see Küng, 1998). However, clearly they are not ethical universals which belong to the intersection of all religions and secular ethical systems. Perhaps the best candidate for an almost universally accepted principle is the "Golden Rule", but many philosophers would deny that such a principle of reciprocal altruism express real morality.

25 Gonzales-Castan (2008) argues that Putnam lacks the tools to deal with "Nietzsche's problem" which concerns radically opposed moral evaluations of the same action.

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