

## MORTON WHITE'S PHILOSOPHY OF CULTURE: HOLISTIC PRAGMATISM AND INTERDISCIPLINARY INQUIRY

SAMI PIHLSTRÖM

**Abstract:** This paper explicates and defends Morton White's holistic pragmatism, the view that descriptive and normative statements form a "seamless web" which must be tested as a "unified whole". This position, originally formulated as a methodological and epistemic principle, can be extended into a more general philosophy of culture, as White himself has shown in his book, *A Philosophy of Culture* (2002). On the basis of holistic pragmatism, the paper also offers a pragmatist conception of metaphilosophy and defends the need for interdisciplinary inquiry.

**Keywords:** pragmatism, holism, metaphilosophy, inquiry, interdisciplinarity, White, M.

### Introduction

Why is Morton White's somewhat neglected philosophical work important, perhaps increasingly important, today? There are, I would like to suggest, both *philosophical* reasons for this, especially the need to develop a coherent version of holistic pragmatism, and what may be called "*academic-political*" as well as more broadly cultural reasons, such as the need to defend the humanities—in the crisis situation that humanistic disciplines are sometimes claimed to be in today—as well as "institute for advanced study" type of interdisciplinary settings for scholarship. In this paper, I want to emphasize both aspects of White's remarkable intellectual profile, while also putting forward proposals to extend his holistic pragmatism to cover metaphysics, theology, and metaphilosophy. Also, some comments on White's readings of his classical pragmatist predecessors are included.

In a broad sense, all these elaborations are related to the key issue of interdisciplinarity that needs to be pursued both within philosophy and in inquiry generally. This issue, I hope to make clear, is not just philosophically central but has general cultural relevance. Holistic pragmatism can be developed into a general philosophy of culture—though this task can only barely be begun in a single essay.

## White's pragmatic holism and holistic pragmatism

Hilary Putnam (1987, 21; see also Putnam 1990, 29, 166, 267) once remarked, discussing W.V. Quine's, Nelson Goodman's and Donald Davidson's philosophical ideas, that their pragmatist views are too narrow because of their failure to apply pragmatism in ethics:

These thinkers have been somewhat hesitant to forthrightly extend the [pragmatic] approach to our moral images of ourselves and the world. Yet what can giving up the spectator view in philosophy mean if we don't extend the pragmatic approach to the most indispensable "versions" of ourselves and our world that we possess? Like William James (and like my teacher Morton White) I propose to do exactly that.

Despite Putnam's and some others' efforts, White has remained an unduly neglected contemporary pragmatist. Unfortunately, even his very important 2002 book, *A Philosophy of Culture*, constituting a summary of his life-long engagement with the relations between pragmatism, science and ethics, did not change this situation.<sup>1</sup> Nor was White's philosophical influence adequately intensified with the publication of Peter Hare's article, "Thickening Holistic Pragmatism" (Hare 2007; see also Hare's brief entry on White in Lachs and Talisse 2008, 805-806; for a more comprehensive general presentation of White's career and thought, see Føllesdal 2005), in which Hare traces the process of holistic developments in pragmatist authors following Quine's "thin" holism—not only White but many others as well, including Henry Jackman and Mark Johnson—and points to further possibilities of enriching White's holistic pragmatism through virtue epistemology and theories of epistemic value.

White's picture of pragmatism is distinctive, original, and highly relevant in contemporary philosophy. Before moving on to consider its relevance in metaphilosophy and academic politics (e.g., in promoting interdisciplinarity), I must introduce the basic ideas of his holistic pragmatism; I will do this through a brief review and critical discussion of *A Philosophy of Culture*, White's main work summarizing the philosophical program of holistic pragmatism and pragmatistically oriented philosophy of culture more generally.

In a Quinean manner, White labels his pragmatism "holistic"; like Quine, he follows the anti-Cartesian and more generally anti-rationalist line of pragmatist thought (White 2002, 3-50) abandoning any "first philosophy". The specific nature of White's position emerges against the background of Quine's more extreme views. While both Quine and White begin from the rejection of the analytic/synthetic distinction and from the holistic idea that our beliefs (or sentences) are not tested individually but "face the tribunal of experience" in corporate bodies, they draw quite different morals from this picture.

Whereas philosophy of science is, for Quine, philosophy enough, White believes that the kind of holistic, empirical approach Quine favours in the philosophy of science can be extended to the *philosophy of culture*, examining not only science but also religion, history, art, law, and morality (*ibid.*, x-xi). This "cultural philosophy" covers philosophy of science as one of its subfields—science, of course, is part of culture, something that human beings "cultivate"—but White insists that other cultural institutions require empirically informed philosophical

---

<sup>1</sup> This section and the following one occasionally partly overlap with my review of White's *A Philosophy of Culture* (Pihlström 2003b).

scrutiny no less than science does (*ibid.*, xiii).<sup>2</sup> Holistic pragmatism says that “philosophy of art, of religion, of morality, or of other elements of culture is in great measure a discipline that is epistemically coordinate with philosophy of natural science” (*ibid.*, 66).<sup>3</sup> Quine’s way of restricting his philosophical concerns to science should be abandoned as an unfortunate and by no means necessary remnant from logical positivism (*ibid.*, 3). The idea that ethics, in particular, “may be viewed as empirical if one includes feelings of moral obligation as well as sensory experiences in the pool or flux into which the ethical believer worked a manageable structure” has been strongly present in White’s writings from an early stage to the present (*ibid.*, xi; see 3, 6, 76, 124-125, and especially Ch. X; see also White 1956; White 1986).<sup>4</sup> This can be regarded as the main novelty in his thought in relation to previous pragmatic holists like Quine.

Quine took his famous holistic step by arguing that even logical truths are not immune to revision, because they are tested along with factual claims as components of a large conjunction of statements (White 2002, 71). No general analytic/synthetic division can be drawn, as statements about, say, the synonymy of terms are ultimately empirical statements describing the contingencies of factual language-use (*ibid.*, 71, 73).<sup>5</sup> Despite this fundamental agreement with Quine, White argues that “observation sentences” (e.g., “That’s a rabbit”) and ethical sentences such as “That’s outrageous” cannot be sharply separated from each other any more than analytic and synthetic statements can; their difference is a matter of degree instead of being a difference in kind (*ibid.*, 154-155, 160-163.). The ethical sentences at issue are, moreover, genuinely normative:

Avoiding the view that ethical sentences are synonymous with sociological or psychological sentences, and being impressed by the failure of reductive phenomenalism as well as the power of holism to bridge the traditional epistemic gap created by the distinction between the analytic and the synthetic, I propose a nonreductive version of holism in order to bridge the gap between the moral and the descriptive [...] (*ibid.*, 157).

---

<sup>2</sup> White notes that he uses the word “culture” as the word “civilization” is sometimes used, to denote institutions like science, religion, or art (*ibid.*). No analytic treatment of what a cultural institution is can be found in his book, though.

<sup>3</sup> I must set aside White’s discussions of explanation in history (*ibid.*, Ch. VII), Goodman’s philosophy of art (*ibid.*, Ch. VIII), and pragmatist philosophy of law drawn from Oliver Wendell Holmes (*ibid.*, Ch. IX). Systematically, I will focus on the key ideas of White’s holistic pragmatism; and historically, on White’s relations to Quine and the classical pragmatists.

<sup>4</sup> For a recent perceptive critical discussion of Quine’s and White’s relations in this regard, see Robert Sinclair, “Morton White’s Moral Pragmatism” (forthcoming in *Cognitio*); for an exposition of the Quine vs. White disagreement, see also Hare (2007, 50-53). Sinclair specifically points out that the Quine vs. White debate on “ethical observation sentences” has focused too much on observation as the (alleged) source of justification of our (ethical) beliefs and statements. In many cases, ethical views are not and cannot be simply observationally justified. I will return to this, and the related problem of ethical relativism, in due course.

<sup>5</sup> White’s “The Analytic and the Synthetic: An Untenable Dualism” was presented in 1949 and published in 1950, a year before the publication of the attack on this distinction by Quine in “Two Dogmas of Empiricism” (reprinted as Ch. 2 of Quine 1953/1980). White’s paper can be found in his collection (1973, Ch. 9). White notes both in that paper and in the 2002 book that his ideas were largely formed through his correspondence with Quine and Goodman in 1947. For this correspondence and its historical context, see White’s autobiography (1999).

That is, descriptive statements and normative ethical principles form conjunctions that are tested holistically, just as Quine argued that scientific and logico-mathematical beliefs in science are.<sup>6</sup> Logic, science, and ethics form a unified whole, a holistic web without epistemic dichotomies (cf. White 1956, 257; see Føllesdal 2005, 2570). Moreover, as logical principles *may*, by Quinean lights, be given up in the face of sufficiently recalcitrant experience, descriptive statements *may* be denied in order to preserve a normative principle we do not want to give up (White 2002, 159), although such situations are rare. White's point is that ethics is not inferior to science, or immune to empirical evaluation, because feelings of obligation together with sensory observation link ethical sentences to the natural world. *Pace* Quine, ethics is, then, "anchored in experience" (*ibid.*, 160). Ethics is a "soft science" rather than a "hard" one, but it is a science nonetheless, hardly any softer than Quine's own naturalized "epistemological science", the branch of psychology studying human cognition (*ibid.*, 161-162). Furthermore, "feeling sentences" are also fallible and can be surrendered when a conjunction is tested (*ibid.*, 166). Both ethics and science are, then, corrigible but cognitive enterprises—just like classical pragmatists like John Dewey also maintained already a century ago. Both are, as a philosopher of culture might prefer to put it, elements of human culture that in the end forms a holistic totality instead of any compartmentalized group of distinct areas with definite boundaries. Knowledge and morals, as White himself formulated his point many years ago, form a "seamless web" (White 1956, 287).

I would be happy to construe this view as a thesis about there being no "value-neutral" facts at all (cf., e.g., White 1981, 78-79, 106);<sup>7</sup> however, I am not quite sure that White himself really intended it in such a metaphysical sense. In any case, White's holism could be extended from the epistemic justification of different kinds of *statements* (sentences) to whatever is the equivalent of such normative justification in the critical evaluation of entire cultural *practices* and *institutions*. While remaining distinct from each other, such practices (e.g., science, politics, religion, art, and others) are dynamically interrelated and must therefore be "tested" holistically—whatever it ultimately means to "test" them.

### Some problems in White's views

Pragmatists who (one might expect) largely sympathize with the softening of the boundary between science and ethics may nevertheless perceive a problem in White's project.

---

<sup>6</sup> In an earlier work, White (1981) labelled his view "epistemological corporatism", meaning by it roughly the doctrine he now calls "holistic pragmatism". Note that this is a methodological or epistemic thesis about the *testing* or *justification* of the different types of statements forming the holistic totality, not a—much more radical—semantic or metaphysical claim about there being no difference between those types of statements, or their objects, at all. Again, cf. Hare, "Thickening Holistic Pragmatism". White's holism (corporatism) is, while more extensive than Quine's holism in its inclusion of ethics and other normative areas, also more limited than Quine's total holism, because it only requires that statements are tested in limited corporate bodies, in contrast to Quine's requirement (at least in "Two Dogmas") of testing the whole of our scientific body of beliefs as a single totality. See Føllesdal (2005, 2571).

<sup>7</sup> I have elsewhere defended the pragmatist thesis (developed by Putnam, in particular, though partly inspired by White) about the entanglement of fact and value in Pihlström (2005); see also Pihlström (2010).

It is sensory experiences and *feelings* of moral obligation that are parts of the experiential “flux” we holistically organize (White 2002, 158-159). White seems to be optimistic about the possibility of a continuous pragmatic (re)organization of the flux. It seems, however, that the really interesting cases in moral philosophy are the ones in which no such organization is readily available even to a pragmatist, i.e., cases of *ethical tragedy* in which one’s feelings of obligation irresolvably conflict. We may feel obligated, and *be* obligated, to do conflicting things, e.g., both to avoid killing and (in some special situation) to kill. Pointing out such tragic features of our cultural institutions and practices, in this case the practice of ethics, in particular, may be one way of holistically evaluating them.

We may feel obligated to do conflicting things also because we may feel there is “something right” in rival ethical theories all of which cannot be true at the same time. Thus, not only are descriptive (factual) and ethical (normative) sentences parts of the same holistic web; this also holds about *different kinds of ethical sentences*, that is, sentences (or views, beliefs, ideas, convictions, etc.) based on different ethical theories, including Kantian deontological ethics, utilitarianism, virtue ethics, and others. All of these theories, and others, may play a legitimate role within a more inclusive pragmatically testable holistic structure. Integrating all such ethical perspectives into a single totality to be continuously critically evaluated in the course of ethical (and factual) experience prevents our ethical thought from being dogmatically tied to just one particular theoretical perspective. Yet, moral dilemmas and tragedies can hardly be completely avoided; on the contrary, they may be unavoidable because of the plurality of relevant perspectives continuously setting us conflicting demands.

What is more, a pragmatist drawing attention not only to the similarities but also to the differences in the practices of ethics and science might point out that in the case of genuine ethical problems, unlike in science, it is not clear that there is any well-defined “solution” to be discovered through empirical inquiry, however holistic. Arguably, a “solution” to an ethical issue can only be one’s personal decision to in a certain way *live through the situation* one faces. One may “organize” the “flux” of sensory experiences and feelings, but even so, one’s attitude to the solving of one’s problems may be entirely different in the ethical case and in the scientific one. Ethics can, presumably, be said to be a form of inquiry (let alone a science) only metaphorically; one might, rather, say that its place and role in culture generally are quite different from those of inquiry as such.

Furthermore, insofar as our feelings of obligation rest on the actual behaviour of the speakers of our linguistic community—e.g., the fact that most speakers are disposed to assent to “That’s outrageous” in some given circumstances (cf. *ibid.*, 163)—the picture of ethics that results is *relativistic*. I doubt that this cultural relativism is a cure for the non-cognitivist disease Quine caught from his logical positivist predecessors. Both positions fail to make sense of the idea that ethical obligation can be felt, and *ought to* be felt, as absolute, uncompromising, perhaps even untestable.<sup>8</sup> In short, while a holistic assimilation of ethics

---

<sup>8</sup> I believe this argumentation strategy might be employed by “Wittgensteinian” moral philosophers (who unfortunately hardly ever discuss pragmatism). Cf., e.g. Phillips (1992); see further Pihlström (2005, Chs. 3-4).

and science would, from Quine's point of view, weaken science by making it empirically less "anchored", White's view may, from a quite different (e.g., Wittgensteinian) perspective, weaken or even destroy ethics by turning it into an empirical discipline, vulnerable to the relativism based on people's contingent "feelings", their actual reactions to ethical issues in different societies.

Another problem emerges at a meta-level (see also below). Isn't holistic pragmatism itself a view *within* morality, in the sense that it is a position that contains a significant ethical element, having to do with what we can or should (legitimately) think or say about human cultural institutions? Aren't we testing the whole conjunction of our beliefs, *holistic pragmatism included* (if it indeed is among our beliefs), whenever we test *any* belief, scientific or ethical? Now, as I have suggested, we may come up with the belief (or, perhaps, the feeling?) that, say, mere feeling is not an appropriate experiential back-up for ethics, i.e., that moral obligation transcends feelings of obligation. How can *this* feeling (stimulated, possibly, by our experience of reading Kant) be accommodated within holistic pragmatism? Is the principle that feelings are central in ethics unsunderable in White's pragmatism? It *shouldn't* be, given his all-encompassing fallibilism and reflexively critical attitude.

White does step on the meta-level when he suggests that holistic pragmatism itself ought to be conceived as a rule rather than a descriptive statement (White 2002, ch. XI). The holistic pragmatist behaves like a legislator transforming a custom into a law when s/he formulates the rule that no experience may disconfirm holistic pragmatism itself, because this is the method we *should* employ in testing our beliefs (*ibid.*, 179). White thus saves the normativity of epistemology, but he hastens to add that rules are not immutable, any more than legal statutes are (*ibid.*, 180, 186). "Resolving to accept holistic pragmatism does not mean that it can *never* be altered or surrendered, but it does mean that a very powerful argument would be required to effect either of those changes" (*ibid.*, 181). White intends his holism to be a normative view of how philosophers should philosophize, and about which topics (*ibid.*, 184-185)—hence, it can be seen as a broad cultural thesis about the way in which a certain area of human culture, philosophy, ought to be organized—but he does not put it forward as a non-revisable norm. It is neither analytic, a priori, necessary, nor self-evident (*ibid.*, 186); it is just our best guess so far, and as things are we ought to follow this rule, in a fallibilist spirit.

White obviously succeeds far better than Quine in preserving the normativity of both ethics and epistemology. But I would still urge that holistic pragmatism ought to be tested against the recalcitrant experience (again, feeling?) that morality cannot be reduced to mere feelings of obligation and sensory experiences, perhaps partly because it is, according to many ethical thinkers, not only like science in being cognitive but also profoundly unlike science in the sense that there are no ready-made solutions to moral problems in advance of one's personal deliberation—solutions we could just cognitively or intellectually "discover". Yet, it is very important to observe here that to admit this possibility of critically evaluating and "testing" holistic pragmatism is to work *within* holistic pragmatism. In this qualified sense, I grant that White has made a very powerful case for his position, even though some of its details cannot be fully accepted. Arguments against his conception of ethics should be evaluated within the overall normative scheme he develops.

## White on the classical pragmatists and pragmatist metaphysics

It is worth observing, further, that in addition to his most original contribution to systematic philosophy (the extension of holistic pragmatism to ethics), some of White's observations on the classical pragmatists are refreshingly novel and would deserve further historical investigation. His historical inquiries are an essential part of the development of holistic pragmatism, because we also need to understand the historical predecessors of our philosophical views in order to appreciate the entire "unified whole" those views are a part of.

Interestingly, White claims that both William James and John Dewey were inconsistent in maintaining a sharp Humean-cum-rationalist distinction between *a priori* (e.g., logico-mathematical) and empirical truths (*ibid.*, 4, 7, 23-24, 52-53). Neither James nor Dewey was, then, able to construct a resolutely anti-rationalist philosophy. White is not denying that James did a great service to holistic pragmatists who reject the analytic/synthetic distinction. Critics of pragmatism assuming the validity of that distinction typically attack the idea that "utility" or "satisfactoriness" could serve as a synonym for the word "true"—or, worse, as a definition of the ultimate, unchanging essence of truth—but the assumption that James was trying to answer the same questions about truth that analytic philosophers habitually ask has led critics like Bertrand Russell and G.E. Moore (and their followers) completely astray. As White perceptively explains, James was not concerned with finding a synonym for "true" (*ibid.*, 17).<sup>9</sup> On the contrary, James "saw himself as an inquirer into the motives of [...] truth-claimers, an inquirer into the causes of their beliefs, just as he saw himself as an inquirer into the sources or causes of religious feelings in the *Varieties*" (*ibid.*, 18).

Thus, James believed that philosophy can employ empirical methods and that empirical results about, say, the emergence of religious views of life are relevant to philosophical questions. James can even be seen as a precursor of the holistic idea that beliefs are tested as corporate bodies: a "whole thinker", employing not only reason but also will, taste, and passion, "subjects a heterogeneous stock of opinions to a test in which logical consistency, and conformity to both experience *and* desire, is to be taken into account" (*ibid.*, 22).<sup>10</sup> In principle, even "the oldest truths in the old stock" of opinions, viz., the truths of logic and mathematics, are regarded as "modifiable in the face of a challenge from the experience" (*ibid.*, 22)—as Quine later argued, though James's position, given his desire to take not just science but also ethics and religion very seriously, is obviously much closer to White's than to Quine's.<sup>11</sup>

---

<sup>9</sup> An anti-essentialist, anti-rationalist reading of James's theory of truth has been presented in a detailed manner in Cormier (2001).

<sup>10</sup> White's reference is to William James (1975 [1907], 34-35, 37). On White's earlier discussions of James in this regard, see his (1973, Ch. 8) as well (1990).

<sup>11</sup> White shows that, somewhat surprisingly, Russell held a similar holistic view of the justification of science, while criticizing James's pragmatism (White 2002, 57). Another interesting historical detail is that Alfred Tarski—the logician one *prima facie* might not find a thinker close to pragmatism—also refused to see any difference "of principle" between logical and empirical statements (*ibid.*, 67-69). White quotes portions from "A Philosophical Letter of Alfred Tarski", sent from Tarski to him in 1944, which he published in *Journal of Philosophy* 84 (1987). For White's reflections on his relations to Tarski, see also White (1999).

James can, then, be read as a philosopher who leads us to abandon the unpragmatic dualisms between logico-mathematical truths and the “synthetic” truths of empirical science, or between scientific and ethical truths (*ibid.*, 22-23). Similarly, Dewey treated logic as an empirical discipline, bridging the gap between logic and natural science, and taught us to regard art as continuous with more primitive forms of organism-environment interaction, attempting to create a “naturalistic philosophy of art and aesthetic criticism” (*ibid.*, 39, 42).<sup>12</sup> Just as James made philosophy of religion empirical, Dewey took an empirical turn in the philosophy of art, while recognizing important similarities between art and science. In this sense, both were very important precursors of the kind of holistic pragmatism that is now available in White’s work.

James, however, also claimed—unholistically—that mathematical statements and “sensible truths” are tested in different ways (*ibid.*, 21, 59),<sup>13</sup> and Dewey seems to have accepted a distinction between “existential” and “ideational” (conceptual) propositions, for reasons that White claims not fully to understand (*ibid.*, 39).<sup>14</sup> This roughly corresponds to the division between synthetic and analytic statements. White locates a dilemma in Dewey’s conception of experience in general and aesthetic experience in particular. If the connection between an experience and the interaction between the experiencing organism and its environment (either in the case of aesthetic experience or more generally) can be described by means of an “ideational” statement, Dewey cannot avoid the analytic/synthetic distinction. On the other hand, if this unwelcome conclusion is avoided by claiming that the experience is produced by the interaction (in a causal sense), then another equally disturbing, almost Cartesian dualism—the one between the interaction external to the organism and the experience inside the organism—is assumed. Consequently, Dewey must embrace either mind-body dualism or the analytic/synthetic distinction (*ibid.*, 40).

The classical pragmatists, then, were unable to carry pragmatic “methodological monism” far enough. It is admittedly slightly puzzling to regard pragmatism, which is often, especially in James, strongly pluralistic, as methodologically monistic. This could mean the commitment to the “pragmatic method”, which can, however, be applied in a plurality of different ways; the monism White speaks about is, on the other hand, primarily the commitment to holistic, anti-dualistic pragmatism in all areas of culture. Hence, the pragmatist should, White argues, apply the same pragmatic considerations of meaningfulness across the board—in logic, physics (and the other natural sciences), ethics, and aesthetics (*ibid.*, 44). Yet, both James and Dewey in the end resorted to somewhat unpragmatic dualisms, while officially renouncing them. Moreover, James at least in a

---

<sup>12</sup> It may be noted that White nowhere satisfactorily defines “naturalism”. His holistic pragmatism embraces the naturalist idea—often ascribed to Quine—that there is no “first philosophy”, no autonomous, foundational role for philosophical inquiry to play as sharply distinguished from empirical inquiry. Yet, as we have seen, White’s view is broader than Quine’s and therefore essentially a form of non-reductive, anti-scientistic naturalism. I believe my own position comes close to White’s in this regard (despite my attachment to a Kantian vocabulary he presumably would not find congenial); I try to develop a pragmatist, non-reductive naturalism in Pihlström (2003a).

<sup>13</sup> White cites such a formulation from James’s *Pragmatism* (1975 [1907], 100-101).

<sup>14</sup> Here White cites Dewey (1938, 146-147, 283-284).



moderate way defended theism, a metaphysical picture that cannot, White claims, ultimately be pragmatically evaluated in terms of the sensory experiences the believer might have (*ibid.*, 46-47). Similarly, even Charles Peirce, the father of the “pragmatic maxim”, was in White’s view inconsistent or insufficiently thoroughgoing in applying his maxim, because he endorsed his well-known “scholastic realist” picture of generalities, particularly scientific laws. White approvingly refers to an argument presented by Arthur W. Burks, according to which the distinction between scholastic realism and nominalism—despite its enormous significance for Peirce—is, pragmatically, a distinction without difference. Like James, Peirce thus abandoned “strict pragmatism” (see *ibid.*, 45-47).

At this point we may speculate that White, like Quine, has not been able to liberate himself from all of his logical positivist assumptions. The pragmatic difference between scholastic realism and nominalism was one of Peirce’s chief concerns especially in his late thought; indeed, Peirce believed pragmatism to be *possible* in the full sense only if one admits “real generals”. White fails to pay attention to the complex ways in which the issues of realism and pragmatism are connected with questions concerning the conditions for the possibility of representation and signification. James, in turn, tried to transform the meaning of theism by reinterpreting it, including its possible experiential effects, pragmatically. It is misleading to criticize his philosophy of religion for its reliance on supersensory experiences, because one of James’s aims was to subordinate his defence of religion to an ethically oriented view of human life in general (doxastic life included), the life we lead within our various practices.<sup>15</sup>

I believe, however, that White’s criticism of C.I. Lewis’s pragmatism is more on the right track, given Lewis’s Carnapian-like commitment to a form of the analytic/synthetic dualism, however pragmatic (*ibid.*, 48-50). While Lewis did advance a version of pragmatism, his being strongly attached to that dualism was the main reason why Quine famously saw it necessary to overcome both his and (more explicitly) Carnap’s ideas with a “more thorough pragmatism”. White’s conclusion that none of the pragmatists he considers (Peirce, James, Dewey, Lewis, Quine) was really able to formulate a thoroughgoing pragmatism because none of them really held that “*all* statements that are commonly said to express knowledge may be justified by the techniques commonly associated with empirical science” (*ibid.*, 53), leads, at any rate, to his own distinctive position—the one we examined above by emphasizing the contrast to Quine.

Another interpretive suggestion one should view with some suspicion is White’s claim that Wittgenstein’s later philosophy, especially its proposal to study “the behaviour of human beings who use language in many different ways”, is close to what “psychologically oriented pragmatists”, particularly James, are preoccupied with (*ibid.*, 62). Undeniably, there is a strong pragmatist strain in Wittgenstein’s thought, and it is known that he was influenced by James,<sup>16</sup> but presumably most Wittgenstein scholars would deny that he encouraged *empirical* inquiry into ways of using language. Philosophical examinations of Wittgensteinian language-games focus, rather, on their “grammatical” features in the quite

---

<sup>15</sup> On James’s philosophy of religion, in relation to pragmatist metaphysics, see Pihlström (2008).

<sup>16</sup> See the discussion of this in Pihlström (2003a, Ch. 3). The most comprehensive treatment on Wittgenstein’s relation to James and pragmatism is available in Goodman (2002).

special Wittgensteinian sense of “grammatical”, and the uses of language to be investigated need not be actual. (We may recall Wittgenstein’s fictional discussions of groups of people using language in unusual ways.) White admits that there may be a “vestige of rationalism” in Wittgenstein because of the distinction between factual and grammatical statements (*ibid.*, 63). Yet, again, this division is not an unbridgeable dualism, because (as Wittgenstein argued in *On Certainty* and elsewhere) the boundary between factual and grammatical statements is soft and changeable through changes in our form(s) of life. So I would count Wittgenstein at least in this respect among the holistic pragmatists as well as, clearly, among philosophers of culture.

It is, in any case, very important to include Wittgenstein in a discussion of *pragmatist* philosophy of language and culture—and this is one more reason to applaud White’s historical redescriptions of the development of holistic pragmatism. One too often encounters accounts of pragmatism that make no mention of Wittgenstein whatsoever.<sup>17</sup> It is also rewarding to read White’s persuasive treatment of John Rawls’s theory of justice as a form of holistic pragmatism based on the idea of a reflective equilibrium, a mutual adjustment between general moral principles and particular judgments (*ibid.*, 170-177).

Yet, there are other central twentieth-century thinkers that could be seen as figures close to holistic pragmatism. I would like to propose just one candidate here, more from the philosophy of science than the philosophy of culture (but a thinker who has crucially increased our understanding of science *as* culture): Thomas Kuhn. Kuhnian paradigms (in a broad sense) contain, one might claim, both empirical beliefs and conceptual assumptions that are taken to be fundamental in the scientific field governed by a paradigm. Whenever a paradigm ends up with a crisis and eventually changes in the manner Kuhn describes,<sup>18</sup> both its conceptual and its empirical assumptions are “tested” and re-evaluated on the basis of “anomalous” experiences. When viewing changes in the normative structure of scientific theories and methodologies in close connection with changes in scientific practices, Kuhn is a thinker we cannot ignore. Another leading contemporary philosopher whose views are close to White’s is the one I cited earlier in this paper, Hilary Putnam. Putnam’s and White’s attacks on ethical non-cognitivism could be compared in an illuminating manner, but that task cannot be undertaken here (cf. here Pihlström 2005).

White’s treatments of historical figures—both his immediate sources of influence like Quine and more indirect ones like the classical pragmatists—contain, despite their brevity, insights that need further examination. It should not be forgotten that philosophy itself is, as White urges, part of our cultural heritage, i.e., part of the object of study for the philosophy of culture. The philosophical views we have adopted from past thinkers are among the conjuncts forming the conjunction of beliefs we constantly need to revise in order to make it fit our experiences; hence, we cannot hope to philosophize in abstraction from the history of philosophy (White 2002, xiv-xv). White shows us how the history of philosophy will be with us to stay, whenever we set out to do systematic philosophical work (see also the discussion

---

<sup>17</sup> Putnam’s writings are, of course, an important exception; see also Goodman (2002).

<sup>18</sup> Kuhn’s thought changed significantly since the publication of his major work, *The Structure of Scientific Revolutions* (1962, 2<sup>nd</sup> ed. 1970), but his links to holistic pragmatism were, I think, only strengthened in the later stages of his career.

of metaphilosophy in the next section below). His readings of the old pragmatists challenge us to reorganize our web of belief with whatever experiences we may have when studying the classics—either the pragmatic holists White admires or, say, the less naturalistically inclined moralists (e.g., Wittgensteinians) who would question White’s conception of ethics as a “science”.

One way of supplementing White’s holistic ethics-science “corporatism” would be the addition of *pragmatist metaphysics* into the picture—yielding an even more comprehensive form of holistic pragmatism. One may argue, as I already did, that White himself is in the end too strongly a disciple of logical empiricism because he simply goes too far in the somewhat dogmatic project of avoiding metaphysics at all costs. I would thus *not* suggest that we follow him into, say, the claim that there is no pragmatic difference between Peircean scholastic realism and nominalism. On the contrary, there is a major pragmatic difference between these positions—but indeed these (and other) metaphysical views have to be understood pragmatically, not as metaphysical theories independent of pragmatic and hence eventually broadly cultural considerations.

Accordingly, also metaphysical statements, like scientific and ethical ones, can thus be holistically evaluated in the pragmatic way White suggests.<sup>19</sup> Pragmatist metaphysics itself can be holistically developed; however, it must not be monistic (as in Hegelian holistic idealism criticized by the pragmatists) but pluralistic, as James famously argued in *Pragmatism* and elsewhere. Furthermore, arguably pragmatist metaphysics can contain *religious* or *theological* statements as well, which must be critically tested as elements of the holistic totality also including ethical statements. White’s pragmatic holism thus still has a contribution to make in the philosophy of religion as well, although it hasn’t so far been sufficiently applied in that field. Only by seriously including metaphysics and theology can holistic pragmatism be a true philosophy of human culture in all its richness.<sup>20</sup>

Arguably, also an adequate normative holistic evaluation of cultural practices presupposes a pragmatic metaphysical commitment to something like the Peircean “real generals”. Practices must be understood as “real” quite independently of their particular manifestations and instances. They cannot be reduced to such individual instances. This point, however, cannot be further developed here.<sup>21</sup>

---

<sup>19</sup> On pragmatist metaphysics more generally, see Pihlström (2009). While I do not explicitly deal with White’s views in the book, the “grounding” of metaphysics in ethics might be understood along the lines of holistic pragmatism: ethics is not prior to metaphysics, but both are parts of the same holistic totality to be pragmatically evaluated, so there is no ethically neutral content in metaphysical inquiries.

<sup>20</sup> Holistic pragmatism could, possibly, be used to make sense of, e.g., philosophical proposals to reconsider and revise certain widely held and strongly entrenched metaphysical beliefs in order to accommodate certain ethically desirable ideas. Mark Johnston (2010), in his fascinating book, *Surviving Death*, proposes a certain philosophical theory of personal identity—whose details cannot be taken up here—in order to be able to defend the thesis that the good in a (not just metaphorical but quite literal) sense survive death, without sacrificing naturalism. This is one interesting case of weighing metaphysical and ethical (and to some extent theological) views together in a holistic totality.

<sup>21</sup> Defending a certain kind of pragmatic construal of Peircean “scholastic realism” about generals is a major task in my (2003a, Ch 3; 2009, Ch. 6).

## Metaphilosophy, holistically and pragmatically conceived

While the meta-level status of holistic pragmatism itself was already briefly considered above, some further remarks should be made on the very idea of “metaphilosophy”. This is one more topic of normative philosophical reflection that holistic pragmatism can help us deal with.

It has sometimes been argued that metaphilosophy can enjoy no independent existence in the way other fields of philosophical inquiry can and do. On the other hand, it is a questionable idea that *any* philosophical field of inquiry could be independent of all the others. Metaphysics and ethics are strongly dependent on each other (I have argued), and so are obviously also, say, philosophy of religion and epistemology. Philosophy generally may be seen as the “coordinating” field within which all these fall. As a “field”, it is dynamic, not static: one’s commitments in one sub-field may affect the possible commitments one may make in another sub-field.

There are hardly any good reasons to believe that metaphilosophy could be the foundational or grounding sub-discipline of philosophy any more than philosophy itself can act as the foundation or ground of all other fields of inquiry. From a (non-reductively) naturalistic perspective, philosophy and the empirical disciplines are parts of the same web of belief (to use a Quinean expression again, without being committed to any specific Quinean view about philosophy or anything else). Philosophy and the sciences are, for the holistic pragmatist, in the same business of explaining and understanding the world. Any alleged “first philosophy” according to which philosophy is an autonomous discipline over and above to, or more fundamental than, the sciences (or other areas of culture), ought to be rejected, while also rejecting the reductive view that philosophical issues are “nothing but” scientific or empirical issues. The metaphor of a dynamic field—or the Quinean notion of a holistic web of scientific belief—is useful here. It may be suggested that the relation between metaphilosophy (as a part of philosophy) and philosophy generally is analogous to the relation between philosophy (as a part of inquiry) and inquiry generally. Metaphilosophy is the—itself dynamically changing and transforming—element of the dynamic field of philosophical inquiry that reflects on the nature of philosophical inquiry itself, its purpose, methods, possible objects, etc.

Instead of Quinean reductive or eliminative naturalism, the holistic pragmatism developed by White offers us a useful tool for explicating the relation between metaphilosophical and “first-order” philosophical statements and reflections. Just as factual and ethical (descriptive and normative) statements are, according to White, parts of the same holistic “web”, as explained above, it may be suggested that metaphilosophical and philosophical statements constitute a holistic web that must, again, be evaluated as a totality, not by evaluating its individual components on a case-by-case basis. Moreover, as philosophy itself is a cultural practice among others, belonging to the same holistic web with other cultural practices, including science, art, and religion, metaphilosophy must also be seen as an element within that overall holistic set of practices.

That is, one’s metaphilosophical commitments are—and cannot help but be—profoundly entangled with one’s commitments in “first-order” areas of philosophical inquiry and reflection (and, indirectly, one’s commitments in other areas of inquiry and reflection, insofar as one’s philosophical positions make any difference in one’s orientation in non-

philosophical inquiries). For example, when one espouses a certain view in epistemology, one should consider the nature of philosophical inquiry and philosophical knowledge in terms of that general epistemological position. When one believes something metaphysical about the nature of human beings, one must consider the implications of those beliefs on one's conception of philosophizing as an activity those beings engage in. Metaphilosophy is always already built into philosophy itself. Whenever one engages in philosophical concept-formation, theorizing, reflection, and inquiry—systematically or historically—one also inevitably engages in metaphilosophizing.

One is then continuously in the business of articulating one's views on what philosophy is and ought to be like, when actually advancing and defending “first-order” philosophical views on any topic whatsoever. And conversely, when metaphilosophizing, one inevitably philosophizes. In principle, an indefinite hierarchy of meta-meta-meta-...-philosophies could be constructed, but that would hardly make any sense, given that “mere” metaphilosophy already presupposes (or, better, *is*) philosophy itself.

Presumably, we should reject the view that there can be “mere” metaphilosophizing, that is, philosophical inquiry into philosophy itself that is not, and does not presuppose, any philosophical views on anything else but philosophy itself. Such metaphilosophy would be empty, but “mere” philosophizing without a reflective metaphilosophical “level” would be blind. This Kantian metaphor is as illuminative here as it is in Kant's own epistemological view concerning the entanglement of concepts and intuitions.<sup>22</sup>

This general picture of metaphilosophical inquiry, spelled out in terms of White's holistic pragmatism—which can also be understood as a holistic non-reductive pragmatic naturalism—is of course itself metaphilosophical. As any metaphilosophical reflection, it presupposes first-order philosophical views, in this case specifically pragmatist (and non-reductively naturalist) views on human concept-formation and belief-fixation. These, again, can be investigated both systematically and historically. The history of philosophy is a crucial element of any (meta)philosophical web of belief worth taking seriously—and this, again, is a metaphilosophical statement about the nature of philosophy and its history, a statement, moreover, that is entangled with historical statements about the ways in which the entanglement of historical and systematic philosophical inquiries have in the past been understood. Moreover, as we already saw above, White's own historical work on his classical pragmatist predecessors like James and Dewey itself plays a very important role in the articulation of the systematic position of holistic pragmatism. In philosophy, there is hardly any completely non-historical way to defend any position whatsoever.

Finally, the general picture of metaphilosophy outlined here is not a neutral umbrella under which any kind of philosophical methodology whatsoever could be accommodated. For instance, the holistic pragmatism employed here as a meta-level framework for the (meta-metaphilosophical?) elaboration of the defended kind of (meta-)metaphilosophical

---

<sup>22</sup> In his late work, Richard Rorty suggested that philosophy should be understood as “cultural politics”, perceptively adding that it is itself a cultural-political question how exactly, or whether, metaphysical or religious issues are reduced to cultural-political ones (see Rorty 2007). We should endorse this holistic, reflexive attitude, while rejecting Rorty's reductive view of philosophy as ultimately collapsing into something that is not philosophy.

picture of the relation between metaphilosophy and (mere) philosophy does preclude a number of philosophical methodologies, including crude eliminative materialism (physicalism), extreme postmodernist relativism, Wittgensteinian-inspired (but arguably not genuinely Wittgensteinian) “merely grammatical” conceptions of philosophy, and many others. Metaphilosophizing is not neutrality. It is, rather, continuous critical and self-critical reflection on the philosophical inquiry one engages in together with other inquirers. Pragmatism is of course only one possible framework for such inquiry, but suitably developed it is a very promising one. What has been proposed here is that its holistic version along the lines suggested by White is one of its most promising variations in this respect.

### **Concluding remarks on humanistic inquiry, interdisciplinarity, and institutes for advanced study**

In conclusion, it may be speculated whether there are also somewhat more political and cultural issues concerning interdisciplinarity, academic freedom, and the status of humanistic disciplines that would also motivate a new look at White. Perhaps the “institute for advanced study” (IAS) type of research environment, which White himself has enjoyed in Princeton since 1970,<sup>23</sup> is ideal, or even essential, for the kind of pragmatic holism White defends? At least it may, arguably, be better for the realization of the kind of critical holistic inquiry than standard departments with disciplinary structure. At an interdisciplinary institute for advanced study, one really is “in” the holistic “web” of different beliefs, theories, and methods. This might be seen as a quasi-philosophical argument for a certain kind of *academic culture*, in favor of certain kind of academic practices, policies, and institutions, that is, in favor of encouraging the setting up of interdisciplinary “institutes for advanced study” (among other kinds of interdisciplinary research institutes), both within universities and (if possible) also independently of universities.

The concept of *interdisciplinary inquiry* is, thus, crucial here. One might even argue that holistic pragmatism itself is not just a philosophical but an inherently interdisciplinary approach. The sciences and the humanities, in particular, are parts of the same holistic web of rational inquiry into the world we live in (just like science and ethics are). A holistic pragmatist conception of interdisciplinarity should be able to integrate naturalism (science) with humanistic “constructivism” (human self-interpretation and self-transformation) into a single, yet pluralistic, image of our rational inquiry into the nature of things, ourselves included.<sup>24</sup> If, when engaging in such inquiries, one is literally surrounded by colleagues representing different disciplines, one may be better equipped to understand one’s own inquiry as interdisciplinary.<sup>25</sup>

---

<sup>23</sup> On White’s relation to the Institute for Advanced Study, see his autobiography (White 1999); on the history of this prestigious institute, see Arntzenius (2011).

<sup>24</sup> One might here be reminded of Wilfrid Sellars’s oft-cited characterization of philosophy as the study of how “things, in the broadest possible sense of the term, hang together, in the broadest possible sense of the term”. See Sellars (1963, 1).

<sup>25</sup> I am not here pretending to know exactly what interdisciplinarity is, or how it should be defined. One aspect of the pragmatist and fallibilist rejection of “first philosophy” (following Quine and White) is the acknowledgment of the need for deepening interdisciplinarity—not only multidisciplinary—in

It has sometimes been suggested that, far from there being a sharp separation between the humanities and the natural sciences, all sciences are actually “human sciences”. Natural sciences like physics are themselves oriented to the world on the basis of human interests and needs. They are not “nature’s own” perspectives but, inescapably, human ones. They are, as much as the traditional humanities, expressions of human self-interpretation. This is also something that a holistic pragmatism could and should spell out in more philosophical detail, while including philosophy—as well as metaphilosophy—itself in the web. Science is part of culture, and when critically examining the normative structures of academic institutions, we again operate within holistic pragmatism, ultimately evaluating the “unified whole” of human culture more generally, i.e., our ways of being in the world and categorizing and inquiring into the world in and through the cultural institutions and practices we have developed and are continuously developing.

Philosophy, then, may really have an effect on academic arrangements and structures. These cultural effects should themselves be philosophically inquired into. The role that philosophy (and metaphilosophy) can play in academic politics should be a matter of philosophical reflection and critical scrutiny. White’s holistic pragmatism gives us *one* way of widening the cultural and generally academic relevance of philosophy in the much wider field of interdisciplinary inquiry.<sup>26</sup>

---

our inquiries into the world and ourselves. Pragmatism, particularly holistic pragmatism, is, arguably, an inherently interdisciplinary approach in inquiry, because pragmatists oppose all dichotomies and boundaries that may “block the road of inquiry” (quoting Peirce’s famous words). Of course, in practice there may be cases in which it is difficult to determine what exactly interdisciplinarity should mean. For example, in interdisciplinary research institutions (e.g., IAS type institutions), there might be at least three alternative “readings” of the requirement to promote interdisciplinarity, significantly varying in strength. (i) Each individual scholar and/or research project might be required to be *internally* interdisciplinary (though possibly there can be degrees in the strength of their interdisciplinarity). Thus, no scholar/project should, according to this formulation, represent just a single academic discipline but would have to represent at least two (or, perhaps preferably, more). (ii) According to a somewhat weaker interpretation, an individual scholar and/or project can represent just one discipline, but they must be open to interdisciplinary relations to other disciplines. There must be interdisciplinary *potential* in a research proposal, even though it need not be internally interdisciplinary. (iii) Only the interdisciplinary research institution as a whole would, according to the weakest interpretation, be required to be truly interdisciplinary. This allows individual scholars and/or projects to be even relatively strictly “disciplinary”, but their combination must be such that (perhaps unexpected) interdisciplinary cooperation may grow out of it. So, how should the correct strength of the interdisciplinary requirement be determined? There is no immediate answer to the question of how strong interdisciplinarity holistic pragmatism should promote. On the contrary, this is once again itself a contextually pragmatic matter, to be determined through a holistic critical consideration of the institution or practice in question in relation to other institutions and practices forming the cultural “web”. The pragmatic value of interdisciplinarity should, moreover, always be relativized to the aims of goals of the particular inquiry (or institution) thus contextually and holistically considered. An obvious example of philosophical interdisciplinarity is the debate over *naturalism*—a debate to which pragmatists since Dewey have made major contributions—which cannot be settled independently of a vast variety of other philosophical and metaphilosophical issues, ethical and political ones included. See further the brief discussion of interdisciplinarity as one of the “new directions” that pragmatism could take in Pihlström (2011, Ch. 16).

<sup>26</sup> I am grateful to Morton White, as well as Robert Sinclair and the late Peter H. Hare, for discussions of holistic pragmatism. In particular, I am very much indebted to Professor White for his arranging a memorable lunch meeting for us at the Institute for Advanced Study in Princeton in February, 2011.

## References

- Arntzenius, L. G. (2011). *Institute for Advanced Study*. Charleston, SC: Arcadia.
- Cormier, H. (2001). *The Truth is What Works: William James, Pragmatism, and the Seed of Death*. Lanham, MD: Rowman & Littlefield.
- Dewey, J. (1938). *Logic: The Theory of Inquiry*. New York: Henry Holt.
- Føllesdal, D. (2005). White, Morton G. (1917-). In J. R. Shook (Ed.). *Dictionary of Modern American Philosophy*. Bristol: Thoemmes Continuum, vol. 4, 2568-2572.
- Goodman, R. B. (2002). *Wittgenstein and William James*. Cambridge: Cambridge University Press.
- Hare, P. H. (2007). Thickening Holistic Pragmatism. *Sats* 8, 42-60.
- Hare, P. H. (2008). "White, Morton Gabriel". In J. Lachs and R. Talisse (Eds.). *American Philosophy: An Encyclopedia*. London and New York: Routledge, 805-806.
- James, W. (1975 [1907]). *Pragmatism: A New Name for Some Old Ways of Thinking*. In F. Burkhardt, F. Bowers, I. K. Skrupskelis. (Eds.). Cambridge, MA and London: Harvard University Press.
- Johnston, M. (2010). *Surviving Death*. Princeton, NJ: Princeton University Press.
- Kuhn, T. S. (1962/1970). *The Structure of Scientific Revolution*. 2<sup>nd</sup> ed. Chicago and London: The University of Chicago Press.
- Phillips, D.Z. (1992). *Interventions in Ethics*. Albany: SUNY Press.
- Pihlström, S. (2003a). *Naturalizing the Transcendental: A Pragmatic View*. Amherst, NY: Prometheus/ Humanity Books.
- Pihlström, S. (2003b). Book Review of White's *A Philosophy of Culture: The Scope of Holistic Pragmatism*. In *Transactions of the Charles S. Peirce Society* 39, 305-313.
- Pihlström, S. (2005). *Pragmatic Moral Realism: A Transcendental Defense*. Amsterdam and New York: Rodopi.
- Pihlström, S. (2008). *"The Trail of the Human Serpent Is over Everything": Jamesian Perspectives on Mind, World, and Religion*. Lanham, MD: University Press of America [Rowman & Littlefield Publishing Group].
- Pihlström, S. (2009). *Pragmatist Metaphysics: An Essay on the Ethical Grounds of Ontology*. London and New York: Continuum.
- Pihlström, S. (2010). Toward a Pragmatically Naturalist Metaphysics of the Fact-Value Entanglement: Emergence or Continuity? *Journal of Philosophical Research* 35, 323-352.
- Pihlström, S. (Ed.). (2011). *Continuum Companion to Pragmatism*, London and New York: Continuum.
- Putnam, H. (1987). *The Many Faces of Realism*. La Salle, IL: Open Court.
- Putnam, H. (1990). *Realism with a Human Face*. J. Conant (Ed.). Cambridge, MA and London: Harvard University Press.
- Quine, W.V. (1953/1980). *From a Logical Point of View*. Cambridge, MA: Harvard University Press.
- Rorty, R. (2007). *Philosophy as Cultural Politics*. Cambridge: Cambridge University Press.
- Sellars, W. (1963). *Science, Perception and Reality*. London: Routledge and Kegan Paul.
- White, M. (1950). The Analytic and the Synthetic: An Untenable Dualism. In S. Hook (Ed.). *John Dewey: Philosopher of Science and Freedom*. New York: Dial. Reprinted in White (1973).
- White, M. (1956). *Toward Reunion in Philosophy*. Cambridge, MA: Harvard University Press.
- White, M. (1973). *Pragmatism and the American Mind: Essays and Reviews in Philosophy and Intellectual History*. New York: Oxford University Press.
- White, M. (1981). *What Is and What Ought to Be Done: An Essay on Ethics and Epistemology*. Oxford: Oxford University Press.
- White, M. (1986). Normative Ethics, Normative Epistemology, and Quine's Holism. In L. E. Hahn and P. A. Schlipp (Eds.). *The Philosophy of W. V. Quine*. La Salle, IL: Open Court.
- White, M. (1990). Pragmatism and the Revolt against Formalism: Revising Some Doctrines of William James. *Transactions of the Charles S. Peirce Society* 26, 1-17.



White, M. (1999). *A Philosopher's Story*. University Park: University of Pennsylvania Press.  
White, M. (2002). *A Philosophy of Culture: The Scope of Holistic Pragmatism*. Princeton, NJ: Princeton University Press.  
Wittgenstein, L. (1969). *On Certainty*. Trans. D. Paul and G.E.M. Anscombe. Oxford: Basil Blackwell.

Helsinki Collegium for Advanced Studies  
& University of Jyväskylä,  
Finland  
E-mail: sami.pihlstrom@helsinki.fi, sami.j.pihlstrom@jyu.fi