The Moral Underpinnings of Popper's Philosophy

By Noretta Koertge

Personal Introduction:

According to Popper's account of observation, what we take away from an encounter depends in part on our state of mind as we approach it. Perhaps, then, it is not surprising that when I first encountered Popper's philosophy of science I took little cognisance of its moral underpinnings. My postgraduate work in history and philosophy of science began in the sixties with Heinz Post at Chelsea College (London). The *Logic of Scientific Discovery* was a required text and we were also urged to attend Popper's lectures at the London School of Economics. The high point of the week, of course, was the famous 'Popper Seminar' in which both students and visitors offered up papers for critical discussion.

Wellmer's *Methodologie als Erkenntnistheorie* (1968) had not been published yet, but his title nicely sums up the complex of topics that we postgraduate students discussed: Did Popper's account of scientific inquiry as a sequence of conjectures and refutations really give us an adequate account of scientific knowledge? What was the status of basic statements? Did his theory of corroboration capture the key considerations that enter into the empirical evaluation of scientific hypotheses? And later there were a host of logical and philosophical puzzles surrounding the concept of *verisimilitude*.

If you had asked me at the time about Popper's moral philosophy and its relationship to his philosophy of natural science, I would have not had much to report. Yes, Popper would sometimes exhort scientists to test their hypotheses severely, but that could have easily been interrupted as a bit of instrumentalistic advice: if you want highly corroborated theories, then you have to subject them to severe tests. He also frequently stressed the importance of expressing oneself clearly (like Bertrand Russell), but that

could also be viewed as an instrumental virtue – clarity helps criticism – that had been reinforced by his antipathy for a lot of traditional German philosophy.

A more promising place to look for moral content, it might have seemed to me then, would have been in his writings on political philosophy. But although there are parallels between Popper's endorsement of a government in which dissatisfied citizens can vote out their representatives in a peaceful fashion and his recommendation that theories be refuted by congeries of contrary experimental data, he is definitely not calling for Revolution in Permanence within the political sphere. Quite the contrary. The recommendation of piece-meal engineering, which seems at odds with the doctrine of severe testing, is based on the argument that social changes should be adopted a bit at a time because it is easier to track the effect of new policies and reverse them if they have harmful unintended consequences. Popper's defence of democracy certainly has moral implications but it would have appeared to me that the connections to his account of scientific inquiry were rather tenuous.

I now view the matter quite differently and the rest of this essay will spell out in detail my present interpretation of the moral concomitants that underlie all of Popper's philosophical works. There are two major factors that triggered this new perspective. First of all, at the end of Popper's career he published three volumes of essays that contain English translations of a number of talks that he gave in Germany and Austria. (1994a, 1994l, 1999a) Here he makes some of the moral commitments already present in his earlier writings more explicit. Secondly, because of my concerns about the so-called Science Wars and current postmodernist attacks on science (cf. Koertge 1994), I am now better able to appreciate his remarks on the moral responsibilities of intellectuals. While it is of course heartening in the struggle against obscurantism to find as eloquent an ally as Popper, of more enduring interest, perhaps, is the insight that a delineation of Popper's moral precepts may provide insight into his writings on other topics.

Popper's *Credo* and Commandments

In the *Open Society* Popper wrote in italics two lines that he later described as his moral *credo*:'*I may be wrong and you may be right, and by an effort, we may get nearer to the truth.*' (Popper 1994m, xii) He had hoped that this motto would help people interpret his theses in the *Open Society* not as dogma but as an appeal to reason. In the Introduction to *Myth* he elaborates what he describes as his 'confession of faith':'[A] faith in peace, in humanity, in tolerance, in modesty, in trying to learn from one's own mistakes; and in the possibilities of critical discussion.'(Popper 1994m, xiii)

In an essay in which he criticizes what he calls 'the myth of the framework,' by which he means the doctrine that dialogue is fruitless unless the participants share basic assumptions, Popper argues that the idea that a shared intellectual framework is required is not only mistaken but also dangerous, for it may lead people to believe that if they don't agree on basics then their only recourse is violence. However, he also emphasizes that there are *attitudes* which may well be preconditions for a discussion, 'such as a wish to get to, or nearer to, the truth, and a willingness to share problems or to understand the aims and the problems of somebody else.'(Popper 1994p, 35)

This blending of empirical and moral critiques is quite common in Popper's less formal essays and speeches. In this same article he shows through historical examples that fruitful discussions have in fact taken place between proponents of what Kuhn might call 'incommensurable' frameworks. He then draws the moral implications of failing to recognize the possibility of dialogue even in cases of extreme divergence of views. By implication he urges other people to adopt the attitude spelled out in his *credo*.

In other places Popper's moral exhortations are more emphatic. For example, on the occasion of being awarded an honorary doctorate at the University of Frankfurt, he first endorses the conception of fallible knowledge put forward by Socrates in Plato's *Apologia*, and then lists duties of intellectuals:

> '[K]nowledge is guesswork disciplined by rational criticism. This turns the struggle against dogmatic thinking into a duty. It also makes the utmost intellectual modesty a duty. And above all, it makes a duty of the cultivation of a

simple and unpretentious language: the duty of every intellectual.'(Popper 1994g, 40)

Once we recognize the moral dimensions of critical rationalism, it becomes easier to understand why the discussions between Popper and his opponents or critics sometimes became so heated. As Popper remarks, 'an epistemological contrast … can result in contrasting ethico-political objectives and requirement'. (Popper 1994g, 33) For example, the doctrine that *the truth is manifest* may be taken to imply that anyone who disagrees with us is biased or prejudiced, a position that poisons political discussion. (Popper 1994h, 152) More is at stake when we do epistemology than how we are to understand the growth of science!

Piecing Together Popper's Moral Framework

Popper rarely provides a systematic discussion of his moral precepts. However, he frequently makes remarks about the moral or ethical significance of various intellectual practices and sometimes draws connections between his epistemology and the moral recommendations that he proposes. Below is my attempt to outline Popper's moral philosophy. (This essay was in its final stages before I learned of Niemann's tremendously useful *Lexikon des Kritischen Rationalismus* (2004). Various articles therein, especially the ones on Popper's conception of intellectual virtue and vice, provide additional valuable examples and alternative perspectives.)

Primary Values: The fundamental value that Popper invokes most frequently is personal freedom in the spirit of Kant (1999h) coupled with the project of *self-emancipation through knowledge*(1994d). His critical rationalist epistemology thus immediately takes on a deep moral significance – it provides the methodology by which we can carry out self-emancipation: '[E]thical principles form the basis of science. The idea of truth as the fundamental regulative principle…can be regarded as an ethical principle'. (Popper 1994j, 199). A despotic government is evil on two counts: it not only limits each individual's freedom of action but also interferes with the communal discussions in

which we learn by criticizing each other's solutions to problems. Thus there are epistemic as well as political reasons for promoting tolerance. Popper freely translates Voltaire's formulation:

> 'Toleration is the necessary consequence of realizing our human fallibility: to err is human, and we do it all the time. *So let us pardon each other's follies*. This is the first principle of natural right.' (Popper 1994j, 190)

Another core value is the minimizing of suffering. (Popper claims this to be a much more important and practical goal than maximizing happiness.) Here technology, which has been developed using the methods and resources of science, becomes a crucial tool for carrying out this moral project. To the extent that they are anti-science, Popper sees various 'Green' political groups as foolishly attempting to negate our best resource for saving the environment. (Popper 1999c, 100) He calls for reasoned and critical discussion of proposed policies to relieve suffering; often it is science that will provide key insights both into the problems and their possible remedies.

Popper opines that if objective truth is perhaps the greatest value there is, cruelty is the greatest evil. (Popper 1994f, 5) Thus the imperative of avoiding cruelty, both physical and mental, is a prime responsibility. He mentions as examples bringing into the world unwanted children who often face a life of abuse and children infected with the AIDS virus. (Popper 1999a, 138) Some cruelty is caused by thoughtlessness and stupidity. Popper, unlike Bertrand Russell, thinks that, in general, people's bad conduct is a result of stupidity, not a deficient moral sense. (Popper 1994k, 213; Popper 1999b, 111). This provides the link between his epistemology and the moral project of avoiding cruelty. As in the projects of avoiding suffering and striving for self-emancipation, a better understanding of how the physical and social world works gives us the means to improve the world.

Epistemic Virtues: Because of the central position of epistemology in Popper's moral philosophy, behaviours that interfere with or enhance a community's ability to engage in efficient problem-solving take on moral significance. Writing in a pompous, convoluted,

obscure style is seen as more than just annoying. It impedes the communal search for knowledge and may lead impressionable individuals to adopt a position without really understanding it. A simple, clear style for Popper is more than a matter of etiquette; it is a basic obligation of an intellectual: '[I]t is the duty of every intellectual to write as simply and clearly as he can, and in as civilized a manner as he can.' (Popper 1994e, 185) '[T]he style of big and obscure words, of words bombastic and incomprehensible…is intellectually irresponsible. It destroys healthy common sense; it destroys reason.' (Popper 1994j, 191)

Popper frequently extols the virtue of intellectual modesty. Since all knowledge claims are fallible, it behooves us to adopt a moderate stance towards the proposals we make. There is no place for dogmatism in Popper's epistemology. But he also has in mind diffidence with regard to our own cleverness. At one point he remarks that geniuses with unique ideas may play an important role in art, but not in science or philosophy. (Nevertheless, he speaks with great admiration of Kepler and Einstein, Socrates and Kant.) If intellectuals were more modest, they would be less able to exert undue influence upon their students or followers:

> '[U]nfortunately, it is all too common among intellectuals to want to impress others and, as Schopenhauer put it, not to teach but to captivate….[T]he true Enlightenment thinker, the true rationalist, never wants to talk anyone into anything…He seeks not to convince but to arouse—to challenge others to form free opinions.'(Popper 1999h, 85)

It is somewhat surprising to find that Popper also places a high premium on optimism and hope. He even says that it is a *duty* to avoid thoroughgoing pessimism (Popper 1999j, 125; Popper 1994k, 213). As we will see in more detail below in the discussion of his views on cynicism and historicism, Popper strongly believes that the future is not fixed by the past, but is radically open to human interventions. By maintaining a hopeful attitude, we are better able to undertake action today that is intended to bring about a better world tomorrow:

'The future is open…. When I say "It is our duty to remain optimists", this includes not only the openness of the future but also that which all of us can contribute to it by everything we do: we are all responsible for what the future holds in store. Thus it is our duty, not to prophesy evil but, rather, to fight for a better world'. (Popper 1994m, xiii)

Dangerous Ideologies: Popper identifies several doctrines that he holds to be not only false, but also dangerous because they lead to seriously immoral consequences. The first, relativism, grows out of a confusion between the notions of truth and certainty. He calls relativism, the idea that opposing views can each be right within their own framework, a 'betrayal of reason and of humanity' and a crime. (Popper 1994f, 5) To drop the goal of objective truth can 'open the way to evil things, such as a propaganda of lies inciting men to hatred.' (Popper 1994f, 5) Thus he faults this philosophical doctrine not only for its deleterious effect on our quest for knowledge but also for its tendency to increase suffering: '[T]he thesis of relativism leads to anarchy, to unlawfulness; and to the rule of violence'. (Popper 1994j, 191)

Popper produced book-length critiques of historicism, the doctrine that there are laws of history that allow us to predict the future, which then enjoins people to work towards the inevitable next stage of social development. Popper shows that historicism is false. In addition to the fact that past history does not conform to any of the laws proposed by people such as Comte and Marx, Popper makes a logical argument: History is influenced by ideas, but no system today can predict what radically new ideas humans may come up with in the future. Of special interest to us here is Popper's moral indictment of historicism. By pretending its prophesies have scientific status, it places constraints on the options open to its adherents in our communal search for a better world.

A related concern is what Popper calls 'utopian planning,' the attempt to lay down detailed rules for a perfect society. Utopians may even rejoice when things go badly because they hope that current hardships will motivate people to work for the revolution that will supposedly solve all social problems. Popper recognizes that many utopians

have good intentions, but faults them for their misunderstanding of the fact that our world is unpredictable because of its openness to new ideas. Especially reprehensible is the practice of encouraging people to sacrifice their lives for a utopian ideal (Popper 1994f, 28).

Cynicism also comes in for scrutiny. Popper admits that there is some plausibility to the doctrine that human actions are motivated by greed, such as, for example, the ruthless quest for gold and oil (Popper 1999b, 105). But he criticizes this theory severely, first by citing examples where there has been moral progress. Not only does technology provide us with the means to get rid of hunger and abject poverty, people are now more willing to move in that direction. And although atomic weapons are an enormous threat to civilization, Popper believes that the creation of peace-keeping organizations, such as the League of Nations and the United Nations, is an indication that people now endorse the idea of world peace in a much more immediate way than ever before. For these reasons, Popper describes it a *duty* to maintain hope instead of falling prey to the purveyors of cynicism and nihilism, which would destroy our motivation to work for a better world (Popper 1999f, 149). Furthermore, he argues that if one assumes that a man's opinions are always determined by his self-interest (and if we apply this principle to ourselves), it makes rational discussion impossible and the breakdown of even the possibility of dialogue leads to disaster (Popper 1994j, 181).

An Ethical Code for Intellectuals

Most of Popper's ethical counsel lies in scattered remarks and the occasional paragraph. But there are two places where he writes at greater length and more formally about the responsibilities of professionals. I begin with his call for a new professional ethics, which was formulated in a lecture entitled 'Toleration and Intellectual Responsibility' (Popper 1994j). Popper points out that traditional codes assume that professionals can have infallible knowledge in their disciplinary area. To be an expert is taken to mean that one simply shouldn't make mistakes. As a consequence there is a temptation not to admit one's own mistakes nor to point out errors made by colleagues. As Popper puts it, the old

professional ethics 'leads (especially in medicine and in politics) to the covering up of mistakes for the sake of protecting authority: mistakes will be swept under the carpet' (Popper 1994j, 200).

A non-justificationist code of ethics would be much less rigid. Once we recognise that it is impossible to avoid all mistakes and that we learn from our own and each other's mistakes, then our automatic condemnation of error will become more discriminating. Of course, Popper emphasizes, it is our duty to avoid unnecessary mistakes. It requires integrity and courage to simultaneously try our best to avoid error and yet freely admit it when it occurs. Popper also remarks on the limits of even fallible expertise. These days it is not practically feasible to be informed about every aspect of even a circumscribed special field of research.

I would add to Popper's proposal for a new professional ethics that how cautious we are in avoiding error will depend on whether we are working in theoretical physics or in medical practice. As Popper says elsewhere, when only ideas are at stake, our best strategy is to make mistakes as rapidly as possible, thus his call for severe testing, namely, the conducting of experiments in the domains where we anticipate the theory is most likely to fail. Clearly that would not be good advice in instances where human safety is involved. One might well say that it is in the areas of applied science and practical action that Popper's response to the problem of induction is itself severely tested! If Popper's new code were to be widely adopted, it would appear that the legal prosecution of malpractice suits would also need to be modified.

However, an important additional component that mitigates some of the concern expressed above about an ethics that may appear too 'soft' on mistakes is presented in an earlier essay called 'The Moral Responsibility of the Scientist' (Popper 1994o). Here Popper says that formerly scientists had a special responsibility to seek for the truth but in general had little occasion to worry about how their discoveries would be applied. However, he says, '[t]his happy situation belongs to the past. Today not only all pure science may become applied science, but even all pure scholarship' (Popper 1994o, 121).

Scientists have now become inextricably involved in the application of science. Because they are privy to relevant information, they should take on the additional responsibility to try to foresee any dangerous unintended consequences of their work and work to counteract them. He sums up this position with the phrase *sagesse oblige* (Popper 1994o, 128).

Popper gives examples of special obligations deriving from special knowledge. Some are commonplace – foreseeing difficulties in disposing of atomic waste or problems concerning population increases and the consumption of natural resources. But he also emphasises the obligations of social scientists to draw our attention to less visible developments that may endanger freedom directly, such as tools for mass-manipulation.

Placed in the context of his other statements about the duties of intellectuals, Popper's codes offer comprehensive guidance for scientists and academics in general. Many elements, such as the responsibility to pursue truth and avoid harm through rational decision making, are familiar -- at least they would have been before the current rise of postmodernism! But the details of Popper's epistemology introduce novel perspectives, such as his call for a thorough-going recognition of fallibilism in professional life and the way his theory of the openness of the physical and psychological world to the influence of new ideas entails the duty to maintain a hopeful attitude.

Biographical Perspectives

Popper uses stories from his own life to illustrate parts of his moral theory. Interesting in their own right, they also exhibit the passion with which Popper approached questions of intellectual morality. Let us begin with the episode in which Viennese police killed young Marxist demonstrators shortly after the end of World War I. In *Conjectures and Refutations* Popper mentions that this tragedy started him thinking about the status of Marxism and whether it really was a scientific theory as claimed. The contrast between Marxism and psychoanalytic theory, on the one hand, and Einstein's theory of relativity

on the other led him to the problem of demarcation, which he 'really fell in love with' (Popper 1999e, 160).

It is only later that we learn about the close personal connections between Popper and the demonstrators. (See Popper 1999b and Popper 1999i.) Out of school at the time, Popper was working as an errand boy for a local Marxist group that had sponsored the 'young comrades' who were gunned down. He describes how the anger he felt at the police was mixed with his personal guilt because his participation had, in a way, encouraged others to be swayed by the Marxist program (Popper 1999i, 133). In lectures given late in life (1991 and 1992), Popper paints a vivid picture of how he found his intellectual honesty being eroded by the powerful ideology of the group:

> 'I was from the beginning somewhat sceptical about the paradise resulting from the revolution…[and] I felt worried about the Party's obvious intention to arouse in its followers what seemed to me murderous instincts against the class enemy. I was told this was necessary, and in any case not meant quite so seriously, and that in a revolution only victory was important, since more workers were killed every day under capitalism than would be killed during the whole revolution. I grudgingly accepted that, but I felt I was paying heavily in terms of moral decency.' (Popper 1999i, 133)

He describes the deceitful leadership and how their historicist claims about the inevitability of the forthcoming revolution for a time overrode his scepticism:

> 'When a youngster is taken in by the proof of the historical necessity of socialism, he feels a deep moral obligation to offer his help—even if he sees, as I did, that the communists often lie and employ morally reprehensible means. For if socialism *must* come about, it is obviously *criminal* to fight its coming. Indeed it is everyone's duty to further the coming of socialism, so that what must come will encounter as little resistance as possible. Since you are not strong enough as an individual, you have to go with the movement, with the Party, and give it your loyal support, even if this means you support or at least swallow things you find

morally repulsive. *This is a mechanism that must lead to personal depravity.* (Popper 1999b, 107, my italics)

Popper broke loose from what he calls 'the Marxist trap' after only eight weeks, around the time of his seventeenth birthday. (Popper 1999b, 108) But we can detect echoes of this early experience throughout his philosophical corpus: his work on the demarcation problem, his critique of historicism, his belief in the importance of ideas and our responsibility to adopt a critical attitude towards them, his fervent individualism and his repeated calls for modesty in the pronouncements of intellectual leaders.

The second biographical theme that I wish to mention is more difficult to recount, partly because it is much less clear what was going on and partly because it presents Popper in a less sympathetic light. I am referring to his public repudiations of German philosophy. As Popper explained on the occasion of receiving the Kyoto Prize, he did not set out to become a professional philosopher (Popper 1999e). His formal training centered on science pedagogy and he wrote his dissertation in psychology with Karl Buehler (whose ideas about the various functions of language are frequently cited by Popper). Yet as we have seen above, Popper was deeply interested in philosophical questions from an early age. Given the fact that he was largely self-taught, it is perhaps not too surprising that Popper seems to have had some difficulty gaining recognition from professional philosophers. He remarks more than once on the fact that he was not invited to attend meetings of the Vienna Circle (cf. Popper 1994e, 176). In 1930 Herbert Feigl encouraged him to write a book and *Logik der Forschung* was published in 1934. It led to invitations to lecture in England and in 1937 he emigrated to New Zealand (Popper 1999e, 159).

So although Germans and Austrians played a dominant role in early 20th century philosophy of science, Popper was only on the periphery of that community. Despite his quarrels with the prevailing Oxford ordinary-language philosophy, he gained recognition in England. Shortly after moving to the London School of Economics he was given a chair and was eventually knighted by Queen Elizabeth II. Like many immigrants he found much to admire about his new country. He praised Bertrand Russell's elegantly

clear writing style. He felt that the English on the whole had 'learnt to respect opinions that differ from their own, and to be sober and realistic in their political aims' (Popper 1994d, 147). He agreed with Trollope's characterization of the *moral sensitivity* of British public opinion, although he emphasised that this ability to intuitively recognise and react to injustice could be lost (Popper 1994h, 154).

From these simple biographical facts alone it would not be surprising to find a certain coolness in Popper's attitude towards German philosophy. And indeed, during the so-called *Positivismusstreit*, outright hostilities broke out. (For a scholarly summary, see David Frisby's introduction to the English translation and Popper's retrospective account of the affair added on at the end (Adorno 1976).) But what is of interest here are Popper's off-the-cuff remarks about the state of German philosophy as expressed in a letter that appeared without his permission in a German newspaper, under the title 'Wider die grossen Worte (Against Big Words)'. When Popper included it in his 1994 anthology he admitted that it has an aggressive tone. I refer to it because its unusually blunt prose gives us insight into the importance that he attaches to values that some of us might consider somewhat secondary.

Popper begins his answers to his interlocutor with a general statement about the importance of clear expression and intellectual modesty:

> 'The worst thing that intellectuals can do—the cardinal sin—is to try to set themselves up as great prophets vis-à-vis their fellow men and to impress them with puzzling philosophies. Anyone who can not speak clearly and simply should say nothing and continue to work until he can do so.' (Popper 1994b, 83)

He then compares certain contemporary leftist philosophers unfavourably with Marx and Lenin. As we have seen from the episode above, Popper has no sympathy with the content of Marxism but he emphasises that both of them wrote in a 'simple and direct manner.' He continues: 'What would they have said of the pomposity of the Neo-Dialecticians? They would have found harsher words than 'pomposity'.' (Popper 1994b, 83) Indeed, Popper himself has harsher words:

'[M]odern left-wing nonsense is generally even worse that modern right-wing nonsense. What have the neo-Dialecticians learnt? They have not learnt how hard it is to solve problems and come nearer to the truth. They have only learnt how to drown their fellow human beings in a sea of words. Consequently, I do not like squabbling with these people*: they have no standards.*' (Popper 1994b, 86) [my italics]

He continues the explanation of why he has not grappled with the writings of Marcuse, Adorno and Habermas:

'I am unwilling to criticize these philosophers. To criticize them would be (as my friend Karl Menger once said) to plunge after them, sword drawn, only to sink with them.' (Popper 1994b, 87)

The letter next provides a list of quotations from Adorno and Habermas in one column and Popper's 'translation' in a parallel column. The contrast between the rather convoluted passages of prose in the left column and Popper's reductive paraphrases on the right is intended to provide a telling illustration of the claim that these authors have such low intellectual standards that it would be a waste of time to criticise their claims. The letter ends with a couplet from Goethe's *Faust:*

'Men do believe, if they hear words,

There must be thoughts that go with them.' (Popper 1994b, 94)

One could surely take issue with Popper's evaluation of these writers. Certainly Hans Albert, who supports Popper's philosophy of critical rationalism, has found it worthwhile to provide detailed criticism of the claims of a variety of German philosophers, in part because they are so influential (e.g., Albert, 1994). Others have found it valuable to compare some of Habermas' later writings with Popper's ideas. (See Stokes, Chapter 8, this volume.) In fact, one could make the case that some of the most interesting debates about Critical Rationalism today are actually centered in Germany!

There may well be a bit of pique interwoven with Popper's indictment of terrible writing styles. He was quite upset because his article did not appear first in the proceedings of a conference where his was the lead-off paper. Popper also resented the fact that the misleading label of 'Positivist' was applied to his position. But what I would have us focus on is the emphasis Popper places on following the norms for productive intellectual inquiry. By saying that words don't matter and that we needn't have a shared framework in order to have a productive dialogue, and by placing little stock in disciplinary boundaries, Popper might be interpreted as a proponent of a rather easy-going, coffee-shop approach to philosophy. Even the opening words of his credo, 'I may be wrong and you may be right…,' might seem to connote a laid-back, free-flowing intellectual atmosphere. But as the Credo continues, it is by an *effort* that we may draw closer to the truth. Speaking clearly and simply is a crucial part of making that effort. This episode reminds us that for Popper, intellectual inquiry is a deadly serious enterprise. Referring to the erroneous, but influential, philosophical views he had criticised in his *Open Society,* Popper remarks: 'I am convinced that we, the intellectuals, are to blame for almost all misery, because we do not strive hard enough to achieve intellectual honesty.' (Popper 1994b, 91-92)

An Evaluation of the Moral Theory Extracted from Popper's Writings

Since Popper himself never laid out a theory of morality and since what I have presented above is a reconstruction of the precepts that appear to inhere in his work, it would hardly be appropriate to fault Popper for leaving out important moral virtues. For example, he says relatively little about justice (although he does criticize Plato's account). Ian Jarvie remarks that the question of what really constitutes justice is ignored: "Popper treats 'justice' as a label for a series of demands for equal treatment for all citizens, and equal sharing of responsibility amongst all citizens." (Jarvie, 161) Presumably, different societies make different demands, which then must be critically discussed. He describes himself as a liberal in the 19th C sense of the term – from various passing remarks his views seem to match up pretty well with the political philosophy of contemporary American Libertarians:

'It is easy to see that the state must be a constant danger, or (as I have ventured to call it) an evil, though a necessary one. For if the state is to fulfil its function [of protecting the weak against the strong], it must have more power …than any single private citizen of public corporation…[I] t seems that most men will always have to pay for the protection of the state, not only in the form of taxes but even in the form of humiliation suffered, for example, at the hands of bullying officials. The thing is not to pay too heavily for it.' (Popper 1994h, 155)

Although the relief of suffering is a primary moral goal he is also concerned that the welfare state may be breeding dependency and indicates that the primary role of government is to protect individual freedom. So self-avowed liberals in the United States would want to add to Popper's theory of morality an emphasis on the economic aspects of equality and fairness.

But what I found most interesting was the strong overlap between the truth-seeking values that dominate his critical rationalism and the civic virtues so important for a liberal democracy. (This theme is explored further in Koertge, forthcoming.) From the single goal of self-emancipation through knowledge, much follows: a dedication to communal problem solving, honesty, openness to criticism, tolerance for other views and a society that supports freedom of expression. When we add the imperatives to relieve suffering and avoid cruelty, we have the building blocks for a pretty adequate moral philosophy.

Where would such a moral theory fit into Popper's three worlds ontology? (For a brief summary of this ontological view see Popper 1999g.) The suffering and cruelty we are trying to avoid lie in both World I and World 2, the pain and anguish in World 2, the open wounds in World 1. The truths (and falsehoods!) that we propose, as well as the arguments and counter arguments that generate our tentative conclusions, lie in World 3, as do our conceptions of our duties and responsibilities. My interpretation of Popper's moral theory also lies in World 3; hopefully it resides in close vicinity to Popper's actual theory! But where should we locate our *commitment* to these goals, our *positive attitudes* toward truth-seeking, our *moral outrage* against cruelty?

Popper has always struck me as wanting to down-play World 2, at least as far as his epistemology is concerned. 'I don't believe in beliefs,' he used to say with a grin. Although he realized there were often feelings of 'friendly-hostile competition' amongst scientists, what was really important was the evaluation of ideas, a process that should be strictly separated from the judgment of the folks who held them. To criticise someone's theory was a great compliment, for it meant they had proposed something that was an interesting possible solution to an important problem—something worth discussing. Thus his approach to understanding the history of science was to look primarily at the scientist's *objective* problem situation. The most important aspects of language were its descriptive and argumentative capabilities, not its expressive function. He even proposed a 'Transference Principle' whereby the principles of logic would be used as a heuristic guide for psychology. (Popper, 1972)

So what are we to make of the attitudes and commitments that seem to energize Popper's moral stance? Certainly claims about what is the right thing to do can be critically discussed—Popper gives examples of moral progress in World 3 (e.g. our rejection of the theories that tried to justify slavery). But in which realm does our repudiation of slavery reside? I would argue that the conviction that slavery is wrong, our moral *sensitivity* to this evil, to use Popper's term, is something like a belief, an almost visceral response in World 2, that gives value to propositions in World 3. If I am right about the centrality of moral convictions to our understanding of Popper's philosophy of science and his political philosophy, then we may need to admit that Popper *did* believe in beliefs after all! He remarks that the phrase *love of truth* is not a mere metaphor (Popper 1994i, 74) and he calls his Credo an attempt to 'summarize a very central part of my moral articles of faith.' (Popper 1994m, xii)

If Popper were to comment, I think he might direct us to his call for a rational theory of tradition. (Popper 1963). Some of our traditions are merely habits at the individual level and conventions at the societal level. A trivial example is the custom of wearing a watch on the left hand. At the other extreme of importance is the meta-tradition of discussing

and criticising our traditions. For example, at the time of the English Revolution, the English began building a tradition of religious tolerance, an attitude that was codified in the procedures of the Royal Society. (cf. Popper 1994d, 147) In politics there has gradually evolved a tradition of government by discussion. But although Popper strongly endorses the idea of submitting our traditions to critical scrutiny, he also emphasizes the necessity for continuity:

> 'We should be anxious, terrified, and frustrated, and we could not live in the social world, did it not contain a considerable amount of order, a great number of regularities is perhaps more important than their peculiar merits or demerits. They are needed as regularities, and therefore handed on as traditions, *whether or not they are in other respects rational or necessary or good or beautiful or what you will*.' (Popper 1962, 130-31)[my italics]

He goes on to fault those rationalists who criticise the emotional intolerance towards innovation of so-called traditional societies. We may well object to the content of some of their traditions—perhaps they lack tolerance—but we should never try to work for a clean slate. '[A]ll social betterment must refer to a framework of social traditions, of which some are criticized with the help of others…' (Popper 1962, 132) The necessity of having a considerable degree of continuity of traditions is yet another reason for his call for piece-meal engineering in the social arena.

In an essay written at about the same time he says that the most important of all traditions is what he calls 'the moral framework': 'This incorporates the society's traditional sense of justice or fairness, or the degree of moral sensitivity it has reached.' (Popper 1994h, 157) The framework can change, but it does so comparatively slowly. 'Nothing is more dangerous than the destruction of this traditional framework, as it was consciously aimed at by Nazism. In the end its destruction will lead to cynicism and nihilism, i.e. to the disregard and the dissolution of all human values.' (Popper 1994h, 157)

I conclude that Popper's own intellectual moral framework had a dual ontological status: It could be articulated in World 3 terms, argued for and criticized. This procedure of

rational appraisal is exactly what Popper executed throughout his writings. But the communal search for emancipation through knowledge was also something that he had internalised into his way of life, something he was committed to, and he could become anxious and frustrated if he believed this moral quest to be in jeopardy. At that point his prose style or his demeanour in seminars would become more heated—he might interrupt speakers or refuse to continue a discussion if he felt his protagonists had violated the intellectual's code of ethics. If Popper erred, it was in thinking that everyone else, if they would only take pause, would surely opt to operate within this same moral framework. Popper's moral philosophy had one foot in World 3 and the other in World 2. Perhaps it was that integration which sustained his lifetime of philosophical productivity.

This ends my reconstruction of Popper's moral theory and its integration with the rest of his philosophy. What directions for future work does it suggest? One could obviously work at a practical level to fill in gaps and search for further applications. For example, what about the problem of intellectual credit? In World 3 terms it should hardly matter who was first to propose a conjecture or make a refutation. Yet scientists and philosophers are notoriously touchy about such matters and Popperians are no exception. What, if anything, does critical rationalism tell us about good ethical rules for giving credit and how we should react if they are violated?

More interesting are meta-ethical issues about the status and evaluation of moral claims. Niemann (1993) develops the idea of treating ethical claims as solutions to specifically ethical problems that can be appraised in a manner similar to Popper's approach to metaphysical claims. On-going work on normative sociology of science, such as that of Agassi, Jarvie and Wettersten, will also be relevant. (See Jarvie 2001 for sample references.) Which rules for communal inquiry best promote our intellectual aims? How do they evolve? How can people be persuaded to adopt them? The current prospects for elaborating and improving Popper's moral philosophy look promising indeed.

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