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Explanation and Practical Reason

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I

Our modern conceptions of practical reason are shaped - I might say distorted - by the weight of moral skepticism. Even conceptions which intend to give no ground to skepticism have frequently taken form in order best to resist it, or to offer the least possible purchase to it. In this practical reason falls into line with a pervasive feature of modern intellectual culture, which one could call the primacy of the epistemological: the tendency to think out the question what something is in terms of the question how it is known.

The place of what I call skepticism in our culture is evident. By this I don't mean just a disbelief in morality, or a global challenge to its claims - though the seriousness with which a thinker like Nietzsche is regarded shows that this is no marginal position. I'm also thinking of the widespread belief that moral positions can't be argued, that moral differences can't be arbitrated by reason, that when it comes to moral values, we all just ultimately have to plump for the ones which feel/seem best to us. This is the climate of thought which Alasdair MacIntyre calls (perhaps a bit harshly) "emotivist" <1>, which at least ought to be called in some sense 'subjectivist'. Ask any undergraduate class of beginners in philosophy, and the majority will claim to adhere to some form of subjectivism. This may not correspond to deeply felt convictions. It does seem to reflect, however, what these students think the intellectually respectable option to be.

What underpins this climate? Some rather deep metaphysical assumptions when one gets down to it. But certainly, on the immediate level, it is fostered by the actual experience of moral diversity. On an issue like abortion, for instance, it doesn't seem to be possible for either side to convince the other. Protagonists of each tend to think that their position is grounded on something self-evident. For some it just seems clear that the foetus is not a person, and it is absurd to ruin the life of some being who undeniably has this status in order to preserve it. For others, it is absolutely clear that the foetus is both life and human, and so terminating it can't be right unless murder is. Neither side can be budged from these initial intuitions, and once one accepts either one the corresponding moral injunctions seem to follow.

If the seeming helplessness of reason tells us something about its real limits, then a worrying thought arises: what if some people came along who just failed to share our most basic and crucial moral intuitions? Suppose some people thought that innocent human beings could be killed in order to achieve some advantage for the others, or make the world more aesthetically pleasing, or something of the sort? And haven't we actually experienced people who stepped way outside the bounds of our core morality: the Nazis for instance? Is reason as powerless before such people, as it seems to be to arbitrate the dispute about abortion? Is there no way to show them wrong?

Here's where our implicit model of practical reason begins

to play an important role. If 'showing them' means presenting facts or principles which they cannot but accept, and which are sufficient to disprove their position, then we are indeed incapable of doing this. But one could argue that that is a totally wrong view of practical reason. Faced with an opponent who is unconfusedly and undividedly convinced of his position, one can indeed only hope to move him rationally by arguing from the ground up, digging down to the basic premisses we differ on, and showing him to be wrong there. But is this really our predicament? Do we really face people who quite lucidly reject the very principle of the inviolability of human life?

In fact, this doesn't seem to be the case. Intellectual positions put forward to justify behaviour like the Nazis' - to the extent that any of their ravings justify this appellation at all - never attack the ban on murder of conspecifics frontally. They are always full of special pleading: e.g., that their targets are not really of the same species, or that they have committed truly terrible crimes which call for retaliation, or that they represent a mortal danger to others, etc. This kind of stuff is usually so absurd and irrational that it comes closer to raving than to reason. And, of course, with people on this kind of trip, reason is in fact ineffective as a defense. But this is not to say that reason is powerless to show them wrong. Quite the contrary. The fact that these terrible negations of civilized morality depend so much on special pleading, and of a particularly mad and irrational sort, rather suggests that there are limits beyond which rational challenges to morality have great trouble going.

This might indicate a quite different predicament of, and hence task for practical reasoning. Its predicament would be defined by the fact that there are limits to what people can unconfusedly and undividedly espouse; so that, for instance, in order to embrace large-scale murder and mayhem, they have to talk themselves into some special plea of the sort mentioned above, which purport to square their policies with some recognized version of the prohibition against killing. But these pleas are vulnerable to reason, and in fact barely stand up to the cold light of untroubled thought.

The task of reasoning then, is not to disprove some radically opposed first premiss (e.g., killing people is no problem). But rather to show how the policy is unconscionable on premisses which both sides accept, and cannot but accept. In this case, its job is to show up the special pleas.

On this model - to offer here at any rate a first approximation - practical argument starts off on the basis that my opponent already shares at least some of the fundamental dispositions towards good and right which guide me. The error comes from confusion, unclarity, or an unwillingness to face some of what he cannot lucidly repudiate; and reasoning aims to show up this error. Changing someone's moral view by reasoning is always at the same time increasing his self-clarity and self-understanding.

Here are two quite different models of practical reason, let us call them the apodeictic and the ad hominem respectively. I think that John Stuart Mill was making use of a distinction of

this kind, and opting for the second, in his famous (perhaps notorious) remarks in Utilitarianism. "Questions of ultimate ends are not amenable to direct proof", he avers, and yet "considerations may be presented capable of determining the intellect either to give or to withhold its assent to the doctrine [sc. of utility]; and this is the equivalent to proof <2>." This may sound like someone trying to squirm his way out of a contradiction, but the distinction is quite clear and sound. You can't argue someone into accepting an ultimate end, utility or any other, if he really rejects it. But in fact, the whole case of utilitarians is that people don't reject it, that they all really operate by it, albeit in a confused and therefore self-defeating fashion. And this is why there may be "considerations...capable of determining the intellect". And in fact, Mill shows us what he thinks these are in chapter IV, where he goes on to argue that what people in fact desire is happiness <3>. The appeal is to what the opponent already seeks, a clear view of which has to be rescued from the confusions of intuitionism.

But, it might be thought, this invocation of Mill is enough to discredit the ad hominem model irremediably. Isn't this exactly where Mill commits the notorious 'naturalistic fallacy', arguing from the fact that men desire happiness to its desirability, on a glaringly false analogy with the inference from the fact that men see an object to its visibility <4>? Derisive hoots echo through philosophy classes since Moore, as beginning students cut their teeth on this textbook example of a primitive logical error.

There is no doubt that this argument is not convincing as it stands. But the mistake is not quite so simple as Moore claimed. The central point that the Moorean objection indicates is the special nature of moral goals. This is a phenomenon which I have tried to describe with the term 'strong evaluation' <5>. Something is a moral goal of ours not just in virtue of the fact that we are de facto committed to it. It must have this stronger status, that we see it as demanding, requiring or calling for this commitment. While some goals would have no more claim on us if we ceased desiring them, e.g., my present aim to have a strawberry ice cream cone after lunch, a strongly evaluated goal is one such that, were we to cease desiring it, we would be shown up as insensitive or brutish or morally perverse.

That's the root of our dissatisfaction with Mill's argument here. We feel that just showing that we always desire something, even that we can't help desiring it, by itself does nothing to show that we ought to desire it, that it's a moral goal. Supposing I were irremediably addicted to smoking. Would that prove that I ought to smoke? Clearly not. We understand smoking from the beginning as a weakly evaluated end. We have to distinguish between showing of some end that we can't help desiring it, and showing that all our strong evaluations presuppose it, or involve it, once we overcome our confusions about them. In the second case, we would have demonstrated that we cannot be lucid about ourselves without acknowledging that we value this end. This is the sense in which it is inescapable, not after the fashion of some de facto addiction. Whereas addictions

are rightly declared irrelevant to moral argument, except perhaps negatively, the proof of inescapable commitment is of the very essence of the second, ad hominem mode of practical reasoning, and is central to the whole enterprise of moral clarification.

Mill is plainly on to some intuition to this effect in deploying the argument in Utilitarianism. One of the things he is trying to show is that everyone else's commitments collapse into his. But the argument is botched because of a crucial weakness of the doctrine of utility itself, which is based on the muddled and self-defeating attempt to do away with the whole distinction between strong and weak evaluation. The incoherence of Mill's defense of the "higher" pleasures on the grounds of mere de facto preference by the "only competent judges" <6>, is also a testimony to the muddles and contradictions which this basically confused theory gives rise to.

But this does point to one of the most important roots of modern skepticism. We can already see that people will tend to despair of practical reason to the extent that they identify its mode of argument as apodeictic. This clearly sets an impossible task for it. But this model will be accepted to the degree that the alternative, ad hominem one appears inadequate or irrelevant. And this it is bound to do, as long as the distinction between strong and weak evaluation is muddled over or lost from sight. This confusion can only breed bad arguments à la Bentham and Mill, and these once denounced, discredit the whole enterprise.

But utilitarianism doesn't come from nowhere. The whole naturalist bent of modern intellectual culture tends to discredit the idea of strong evaluation. The model for all explanation and understanding is the natural science which emerges out of the 17th Century revolution. But this offers us a neutral universe; it has no place for intrinsic worth, or goals which make a claim on us. Utilitarianism was partly motivated by the aspiration to build an ethic which was compatible with this scientific vision. But to the extent that this outlook has a hold on the modern imagination, even beyond the ranks of utilitarianism, it militates in favour of accepting the apodeictic model, and hence of a quasi-despairing acquiescence in subjectivism.

The link between naturalism and subjectivism is even clearer from another angle. The 17th century scientific revolution destroyed the Platonic-Aristotelian conception of the universe as the instantiation of Forms, which defined the standards by which things were to be judged. The only plausible alternative construal of such standards in naturalist thought was as projections of subjects. They were not part of the fabric of things, but rather reflected the way subjects react to things, the pro- or con-attitudes they adopt. Now perhaps it's a fact that people's attitudes tend to coincide - a happy fact, if true; but this does nothing to show that this point of coincidence is righter than any other possible one. <7>

The opposition to this naturalist reduction has come from a philosophical stance which might in a broad sense be called 'phenomenological'. By that I mean a focus on our actual practices of moral deliberation, debate, understanding. The attempt is to show in one way or another, that the vocabularies we need to explain human thought, action, feeling, or to

explicate, analyze, justify ourselves or each other, or to deliberate on what to do, all inescapably rely on strong evaluation. Or put negatively, that the attempt to separate out a language of neutral description, which combined with commitments or pro/con-attitudes might recapture and make sense of our actual explanations, analyses, deliberations, etc., leads to failure and will always lead to failure. It seems to me that this case has been convincingly made out, in a host of places. <8>

This kind of argument is, of course, not only a justification of the very foundation of the ad hominem mode of reasoning, but an example of it. It tries to show us that in all lucidity we cannot understand ourselves, or each other, cannot make sense of our lives or determine what to do, without accepting a richer ontology than naturalism allows, without thinking in terms of strong evaluation. This might be thought to beg the question, establishing the validity of a mode of argument through a use of it. But the presumption behind this objection ought to be challenged: what in fact ought to trump the ontology implicit in our best attempts to understand/explain ourselves? Should the epistemology derived from natural science be allowed to do so, so that its metaphysical bias in favour of a neutral universe over-rules our most lucid self-understandings in strongly evaluative terms? But doesn't this rather beg the crucial question, viz., whether and to what extent human life is to be explained in terms modelled on natural science? And what better way to answer this question than by seeing what explanations actually wash?

II

Enough has been said in the above, I hope, to show that one of the strongest roots of modern skepticism/subjectivism in regard to ethics is the naturalist temper of modern thought. This tends to discredit in advance the ad hominem mode of argument, which actually might hold out the hope of settling certain moral issues by reason, and leaves only the apodeictic model in the field, which clearly sets an impossible standard. Within a human situation inescapably characterized in strongly evaluative terms, we can see how argument aimed at self-clarification might in principle at least bring agreement. In a neutral universe, what agreement there is between attitudes seems merely a brute fact, irrelevant to morals, and disagreement seems utterly inarbitrable by reason, bridgeable only by propaganda, arm-twisting, or emotional manipulation.

But this analysis brings to mind another source of modern skepticism, constituted by the independent attractions of the apodeictic model itself. Here's where we really measure the tremendous hold of epistemology over modern culture.

This model emerges *pari passu* with and in response to the rise of modern physical science. As we see it coming to be in Descartes and then Locke, it is a foundationalist model. Our knowledge claims are to be checked, to be assessed as fully and responsibly as they can be, by breaking them down and identifying their ultimate foundations, as distinct from the chain of

inferences which build from these towards our original unreflecting beliefs. This foundationalist model can easily come to be identified with reason itself. Modern reason tends to be understood no longer substantively but procedurally, and the procedures of foundationalism can easily be portrayed as central to it. But from the foundationalist perspective, only the apodeictic mode of reasoning is really satisfactory; the appeal to shared fundamental commitment seems simply a recourse to common prejudices. The very Enlightenment notion of prejudice encapsulates this negative judgement.

This brings us to another aspect. Foundationalist reasoning is meant to shake us loose from our parochial perspective. In the context of 17th Century natural science this involved in particular detaching us from the peculiarly human perspective on things. The condemnation of secondary qualities is the most striking example of this move to describe reality no longer in anthropocentric but in 'absolute' terms. <9>

But if the canonical mode of reasoning involves maximally breaking us free from our perspective, then the ad hominem mode cannot but appear inferior, since by definition it starts from what the interlocutor is already committed to. And here a particularly important consideration comes into play. Starting from where your interlocutor is not only seems an inferior mode of reason in general, but it can be presented as a peculiarly bad and indeed, vicious form of practical reason. For all those whose instinct tells them that the true demands of morality require radical change in the way things are, and the way people have been trained to react to them, starting from the interlocutor's standpoint seems a formula for conservatism, for stifling at the start all radical criticism, and foreclosing all the really important ethical issues.

This has always been one of the strongest appeals of utilitarianism, and one of the greatest sources of self-congratulation by partisans of utility. It is not only that their theory has seemed to them the only one consonant with science and reason, but also that they alone permit of reform. J.S. Mill argues against views based on mere "intuition" that they freeze our axiomata media for ever, as it were, and make it impossible to revise them, as mankind progresses and our lights increase. "The corollaries from the principle of utility, ...admit of indefinite improvement, and, in a progressive state of the human mind, their improvement is perpetually going on" <10>.

Here is a source of modern skepticism and subjectivism which is as powerful as naturalism, and tends to operate closely in tandem with it, viz., the belief that a critical morality, by its very nature, rules out the ad hominem mode of practical reasoning. Naturalism and the critical temper together tend to force us to recognize the apodeictic mode as the only game in town. The obvious severe limitations of this mode in face of ethical disagreement then push us towards a half-despairing, half-complacent embracing of an equivocal ethical subjectivism.

I have tried to show elsewhere that this identification of the demands of critical morality with a procedural understanding of reason and the apodeictic mode is deeply mistaken <11>. But erroneous or not, it clearly has been immensely influential in

our intellectual culture. One can see this in the way people unreflectingly argue in terms of this model.

Discuss the question of arbitrating moral disputes with any class, graduate or undergraduate, and very soon someone will ask for 'criteria'. What is aimed at by this term is a set of considerations such that, for two explicitly defined, rival positions X and Y, (a) people who unconfusedly and undividedly espouse both X and Y have to acknowledge them, and (b) they are sufficient to show that Y is right and X is wrong, or vice versa. It is then driven home, against those who take an upbeat view of practical reason, that for any important moral dispute, no considerations have both a and b. If the rift is deep enough, things which are b must fail of a, and vice versa.

The problem lies with the whole unreflecting assumption that 'criteria' in this sense are what the argument needs. We shall see, as we explore this further, that this assumption, as it is usually understood in the context of foundationalism, amounts to ruling out the most important and fruitful forms of the *ad hominem* mode.

But this whole assumption that rational arbitration of differences needs 'criteria' has become very problematic, not only for practical reason. It is a notorious source of puzzlement and skeptical challenges in the history of science as well. It is some underlying assumption of this kind which has driven so many people to draw skeptical conclusions from the brilliant work of Thomas Kuhn (conclusions to which Kuhn himself has sometimes been drawn, without ever succumbing to them). For what Kuhn persuasively argued was the 'incommensurability' of different scientific outlooks which have succeeded each other in history. That is, their concepts are non-intertranslatable, and - what is even more unsettling - they differ as to what features or considerations provide the test of their truth. The considerations each recognizes as having b are diverse. There are no criteria. And so the radical inference of a Feyerabend has seemed widely plausible: 'anything goes'.

But as Alasdair MacIntyre has argued in another work <12>, it is clear that what needs revision here is our meta-theory of scientific reasoning, rather than, e.g., our firmly established conviction that Galileo made an important step forward relative to Aristotelian physics. The blind acceptance of a foundationalist, apodeictic model of reasoning is perhaps just as damaging here as in ethics. Calling to mind how inadequate the model is here can both help to weaken its hold on us in general, and allow us to see more exactly what is truly peculiar to practical reason.

MacIntyre argues very convincingly that the superiority of one scientific conception over another can be rationally demonstrated, even in the absence of what are normally understood as criteria. These are usually seen as providing some externally defined standard, against which each theory is to be weighed independently. But what may be decisive is that we be able to show that the passage from one to the other represents a gain in understanding. In other words, we can give a convincing narrative account of the passage from the first to the second as an advance in knowledge, a step from a less good to a better understanding

of the phenomena in question. This establishes an asymmetric relation between them: a similarly plausible narrative of a possible transition from the second to the first couldn't be constructed. Or to put it in terms of a real historical transition, portraying it as a loss in understanding is not on.
<13>

What I want to take from this is the notion that one can sometimes arbitrate between positions by portraying transitions as gains or losses, even where what we normally understand as decision through criteria - qua externally defined standards - is impossible. I should like to sketch here three argument forms, in ascending order of radical departure from the canonical, foundationalist mode.

1. The first takes advantage of the fact that we are concerned with transitions, that the issue here is a comparative judgement. On the standard, unreflecting assumptions of foundationalism, comparative judgements are usually secondary to absolute ones. Rival positions X and Y are checked against the facts, and one is shown superior to the other because it predicts or explains certain facts which the other does not. The comparative judgement between the two is based on absolute judgements concerning their respective performance in face of reality. The role of criteria here is taken by facts, observations, protocols, or perhaps by standards to be applied to explanations of facts - such as elegance, simplicity. Just as in a football game, the comparative verdict: team X won, is founded on two absolute assessments: e.g., team X scored 3 goals, and team Y scored 2 goals. The most popular theory of scientific reasoning with this traditional structure, Popper's, resembles indeed the eliminative rounds in a championship. Each theory plays the facts, until it suffers defeat, and then is relegated.

But as MacIntyre shows, comparative reasoning can draw on more resources than this. What may convince us that a given transition from X to Y is a gain is not only or even so much how X and Y deal with the facts, but how they deal with each other. It may be that from the standpoint of Y, not just the phenomena in dispute, but also the history of X, and its particular pattern of anomalies, difficulties, makeshifts, breakdowns, can be greatly illuminated. In adopting Y, we make better sense not just of the world, but of our history of trying to explain the world, part of which has been played out in terms of X.

The striking example, which MacIntyre alludes to, is the move from Renaissance sub-Aristotelian to Galilean theories of motion. The Aristotelian conception of motion, which entrenched the principle: no motion without a mover, ran into tremendous difficulty in accounting for 'violent' motion, e.g., the motion of a projectile after it leaves the hand, or cannon mouth. The Paduan philosophers and others looked in vain for factors which could play the continuing role of movers in pushing the projectile forward. What we now see as the solution doesn't come until theories based on inertia alter the entire presumption of what needs explaining: continued rectilinear (or for Galileo circular) motion isn't an explanandum.

What convinces us still today that Galileo was right can perhaps be put in terms of the higher 'score' of inertial

theories over Aristotelian ones in dealing with the phenomena of motion. After all this time, the successes of the former are only too evident. But what was and is also an important factor - and which obviously bulked relatively larger at the time - is the ability of inertial theories to make sense of the whole pattern of difficulties which beset the Aristotelians. The superiority is registered here not simply in terms of their respective 'scores' in playing 'the facts', but also by the ability of each to make sense of itself and the other explaining these facts. Something more emerges in their stories about each other than was evident in a mere comparison of their several performances. This shows an asymmetric relation between them: you can move from Aristotle to Galileo realizing a gain in understanding, but not vice versa.

2. This is still not a radical departure from the foundational model. True, decisive criteria are not drawn from the realm of facts, or of universally accepted principles of explanation. But the crucial considerations are still accessible to both sides. Thus the pre-Galileans were not unaware of the fact that they had a puzzling problem with violent motion. To speak Kuhnian language, this was an 'anomaly' for them, as their intellectual perplexity and the desperate expedients they resorted to testify. The decisive arguments are transitional, they concern what each theory has to say about the other, and about the passage from its rival to itself, and this takes us beyond the traditional way of conceiving validation, both positivist and Popperian. But in the strict sense of our definition above, there are still 'criteria' here, for the decisive considerations are such that both sides must recognize their validity.

But, it can be argued, if we look at the 17th Century revolution from a broader perspective, this ceases to be so. Thus if we stand back and compare the dominant models of science before and after the break, we can see that different demands were made on explanation. The notion of a science of nature, as it came down from Plato, and especially from Aristotle, made explanation in terms of Forms (eidè or species) central, and beyond that posited an order of forms, whose structure could be understood teleologically, in terms of some notion of the good, or of what ought to be. Principles like that of plenitude, which Lovejoy identifies and traces, make sense on that understanding: we can know beforehand, as it were, that the universe will be so ordered as to realize the maximum richness <14>. Similarly, explanations in terms of correspondences are possible, since it follows from the basic conception that the same constellation of ideas will be manifested in all the different domains.

Now if science consists of a grasp of order of this kind, then the activity of explaining why things are as they are (what we think of as science) is intrinsically linked to the activity of determining what the good is, and in particular how human beings should live through attuning themselves to this order. The notion that explanation can be distinct from practical reason, that the attempt to grasp what the world is like can be made independent of the determination of how we should stand in it, that the goal of understanding the cosmos can be uncoupled from our attunement to it, this makes no sense on the pre-modern

understanding.

But notoriously the 17th Century Revolution brought about an uncoupling of just this kind. The turn to mechanism offers a view of the universe as neutral; within it cause-effect relations can be exploited to serve more than one purpose. Galileo and his successors, we might say, turn towards an utterly different paradigm of explanation. If scientific explanation can always be roughly understood as in some sense rendering the puzzling comprehensible by showing how the phenomenon to be explained flows from mechanisms or modes of operation which we understand, then the 17th Century sees a massive shift in the kind of understanding which serves as the basic reference point.

There is certainly one readily available mode of human understanding which the Platonic-Aristotelian tradition drew on. We are all capable of understanding things in terms of their place in a meaningful order. These are the terms in which we explain the at first puzzling behaviour of others, or social practices which seemed at first strange, or some of the at first odd-seeming details of a new work of art, or the like. In another quite different sense of 'understanding' we understand an environment when we can make our way about in it, get things done in it, effect our purposes in it. This is the kind of understanding a garage mechanic has, and I unfortunately lack, of the environment under the hood of my car.

One of the ways of describing the 17th Century revolution in science is to say that one of these paradigms of understanding comes to take the place of the other as the basic reference point for scientific explanation of nature <15>. But this has as ineluctable consequence the diremption of explanation from practical reason I mentioned above. Only the first type of understanding lends itself to a marriage of the two.

But once we describe it in this way, the scientific revolution can be made to appear as not fully rationally motivated. Of course, we all accept today that Galileo was right. But can we justify that preference in reason? Was the earlier outlook shown to be inferior, or did its protagonists just die off? If you ask the ordinary person today for a quick statement why he holds modern science as superior to the pre-modern, he will probably point to the truly spectacular technological pay-off that has accrued to Galilean science. But here's where the skeptic can enter. Technological pay-off, or the greater ability to predict and manipulate things, is certainly a good criterion of scientific success on the post-Galilean paradigm of understanding. If understanding is knowing your way about, then modern technological success is a sure sign of progress in knowledge. But how is this meant to convince a pre-Galilean? For in fact, he is operating with a quite different paradigm of understanding, to which manipulative capacity is irrelevant, which rather proves itself through a different ability, that of discovering our proper place in the cosmos, and finding attunement with it. And, it could be argued, modern technological civilization is a spectacular failure at this, as ecological critics and green parties never tire of reminding us.

Is the argument then to be considered a stand-off between the two, judged at the bar of reason? Here the skeptical spin-off

from Kuhn's work makes itself felt. Once one overcomes anachronism and comes to appreciate how different earlier theories were, how great the breaks are in the history of knowledge - and this has been one of the great contributions of Kuhn's work - then it can appear that no rational justification of the transitions are possible. For the considerations that each side looks to diverge. Each theory carries with it its own built-in criteria of success - moral vision and attunement in one case, manipulative power in the other - and is therefore invulnerable to the other's attack. In the end, we all seem to have gone for manipulative power, but this has to be for some extra-epistemic consideration, i.e., not because this mode of science has been shown superior as knowledge. Presumably, we just like that pay-off better. In terms of my earlier discussion, what we lack here are 'criteria', there are no decisive considerations which both sides must accept.

Some people are driven by their epistemological position to accept some account of this kind <16>. But this seems to me preposterous. Once more, it can appear plausible only because it fails to think of the transition between the two views. It sees each as assessing a theory's performance in face of reality by its own canons. It doesn't go further and demand of each that it give an account of the existence of the other; i.e., not just explain the world, but explain also how this other, rival (and presumably erroneous) way of explaining the world could arise.

Once one makes this demand, one can appreciate the weakness of pre-Galilean science. There is a mode of understanding which consists of knowing one's way about. This is universally recognized. In making another mode paradigm for scientific explanation, pre-Galilean science drew on a set of assumptions which entailed that this manipulative understanding would never have a very big place in human life. It always allowed for a lower form of enquiry, the domain of 'empirics', who scramble around to discover how to achieve certain effects. But the very nature of material embodiment of Forms, as varying, approximate, never integral, ensured that no important discoveries could be made here, and certainly not an exact and universal body of findings. Consequently, the very existence of such a body of truths, and the consequent spectacular manipulative success, represents a critical challenge for pre-modern science. Indeed, it is difficult to see how it could meet this challenge. On its basic assumptions, modern science shouldn't have got off the empiric's bench, emerged from the dark and smelly alchemist's study to the steel-and-glass research institutes that design our lives.

So the problem is not some explanatory failure on its own terms, not some nagging, continuing anomaly, as in the narrower issue above of theories of motion; it is not that pre-Galilean science didn't perform well enough by its own standards; or that it doesn't have grounds within itself to downgrade the standards of its rivals. If we imagine the debate between the two theories being carried on timelessly on Olympus, before any actual results are obtained by one or the other, then it is indeed, a stand-off. But what the earlier science can't explain is the very success of the later on the later's own terms. Beyond a certain point, you

just can't pretend any longer that manipulation and control are not relevant criteria of scientific success. Pre-Galilean science died of its inability to explain/assimilate the actual success of post-Galilean science, where there was no corresponding symmetrical problem. And this death was quite rationally motivated. On Olympus the grounds would have been insufficient; but faced with the actual transition, you are ultimately forced to read it as a gain. Once again, what looks like a stand-off when two independent, closed theories are confronted with the facts, turns out to be conclusively arbitrable in reason when you consider the transition. <17>

I have been arguing in the above that the canonical, foundationalist notion of arbitrating disputes through criteria generates skepticism about reason, which disappears once one sees that we are often arguing about transitions. And we have seen that this skepticism affects some of the more important transitions of science just as much as it does the disputes of morality, and for the same reason, viz., the seeming lack of common criteria. In particular, it tends to make the history of science seem less rational than it has in fact been.

Now the second case is in a sense a more radical departure from the canonical model than the first. For the defeat doesn't come from any self-recognized anomaly in the vanquished theory. Nevertheless, there was something which the losing theory had to recognize outside the scope of its original standards, viz., that the very success of mechanistic science posed a problem. If we ask why this is so, we are led to recognize a human constant, viz., a mode of understanding of a given domain, D, which consists in our ability to make our way about and effect our purposes in D. We might borrow a term from Heidegger, and call this understanding as we originally have it prior to explicitation or scientific discovery 'pre-understanding'. One of the directions of increasing knowledge of which we are capable consists in making this pre-understanding explicit, and then in extending our grasp of the connections which underly our ability to deal with the world as we do. Knowledge of this kind is intrinsically linked with increased ability to effect our purposes, with the acquisition of potential recipes for more effective practice. In some cases, it is virtually impossible to extend such knowledge without making new recipes available; and an extension of our practical capacities is therefore a reliable criterion of increasing knowledge.

Because of these links between understanding and practical ability, we cannot deny whatever increases our capacities its title as a gain in knowledge in some sense. We can seek to belittle its significance, or deem it to be by nature limited, disjointed and lacunary, as Plato does. But then we have to sit up and take notice when it manages to burst the bounds we set for it; and this is what has rendered the transition to Galilean science a rational one.

The mediating element is something deeply embedded in the human life form, of which we are all implicitly aware, and which we have to recognize when made explicit: the link between understanding (of a certain kind) and practical capacity. But then isn't the predicament of reason here coming to look

analogous to the description I offered above of moral disputes? The task is not to convince someone who is undividedly and unconfusedly attached to one first principle that he ought to shift to an entirely different one. So described, it is impossible. Rather, we are always trying to show that, granted what our interlocutor already accepts, he cannot but attribute to the acts or policies in dispute the significance we are urging on him.

Now here it has been a question of altering the first principles of science - the paradigms of understanding underlying it and the standards of success. And we can see a rational path from one to the other, but only because in virtue of what the pre-Galilean already accepts he cannot but recognize the significance of Galilean science's massive leap forward. No more in one case than in the other it is a question of radical conversion from one ultimate premiss to the other. That would indeed be irrational. Rather we show that the pre-Galilean could not undividedly and unconfusedly repudiate the deliverances of post-Galilean science as irrelevant to the issue that divides them.

Perhaps then, those ultimate breakpoints we speak of as 'scientific revolutions' share some logical features with moral disputes. They both are rendered irrational and seemingly inarbitrable by an influential but erroneous model of foundationalist reasoning. To understand what reason can do in both contexts, we have to see the argument as about transitions. And as the second case makes plain, we have to see it as making appeal to our implicit understanding of our form of life.

This brings to the fore one of the preconceptions which has bedevilled our understanding here and fostered skepticism. On the standard foundationalist view, the protagonists are seen as closed explicit systems. Once one has articulated their major premisses, it is assumed that all possible routes of appeal to them have been defined. So the pre-Galilean model, with its fixed standards of success, is seen as impervious to the new standards of prediction and control. But the real positions held in history don't correspond to these watertight deductive systems, and that is why rational transitions are in fact possible.

We could argue that there are also moral transitions which could be defended in a way very analogous to the scientific one just described. When one reads the opening pages of Foucault's *Surveiller et Punir* <18>, with its rivetting description of the torture and execution of a parricide in the mid-18th Century, one is struck by the cultural change we have gone through in post-Enlightenment western civilization. We are much more concerned about pain and suffering than our forebears, we shrink from the infliction of gratuitous suffering. It would be hard to imagine people taking their children to such a spectacle in a modern western society, at least openly and without some sense of unease and shame.

What has changed? It is not that we have embraced an entirely new principle, that our ancestors would have thought the level of pain irrelevant, providing no reason at all to desist from some course of action involving torture or wounds. It's rather that this negative significance of pain was subordinated

to other weightier considerations. If it is important that punishment in a sense undo the evil of the crime, restore the balance - what is implicit in the whole notion of the criminal making 'amende honorable' - then the very horror of parricide calls for a particularly gruesome punishment. It calls for a kind of theatre of the horrible as the medium in which the undoing can take place. In this context, pain takes on a different significance: there has to be lots of it to do the trick. The principle of minimizing pain is trumped.

But then it is possible to see how the transition might be assessed rationally. If the whole outlook which justifies trumping the principle of minimizing suffering - which involves seeing the cosmos as a meaningful order in which human society is embedded as a microcosm or mirror - comes to be set aside, then it is rational to be concerned above all to reduce suffering. Of course, our ultimate judgement will depend on whether we see the change in cosmology as rational; and that is, of course, the issue I have just been arguing in connection with the scientific revolution. If I am right there, then here too the transition can perhaps be justified.

Of course, I am not claiming that all that has been involved in this important change has been the decline of the earlier cosmology. There are other, independent grounds in modern culture which have made us more reluctant to inflict pain. Some of them may have sinister aspects, if we believe Foucault himself. I haven't got space to go into all this here <19>. But surely we must recognize the decline of the older notion of cosmic/social order as one consideration which lends a rational grounding to modern humanitarianism. This change would not only be linked to that in scientific theory, it would also be analogous to it in rational structure: to something which has always been recognized, although formerly in a subordinate place (the link between understanding and practice, the good of reducing pain) we are now constrained to give a more central significance because of changes which have taken place.

But this analogy I have been trying to draw between the justification of some scientific and moral revolutions can't hide the fact that a great many moral disputes are much more difficult to arbitrate. To the extent that one can call on human constants, these are much more difficult to establish. And the suspicion dawns that in many cases such constants are of no avail. The differences between some cultures may be too great to make any *ad hominem* form of argument valid between them. Disputes of this kind would be inarbitrable.

3. But this form of argument, from the constants implicitly accepted by the interlocutor, doesn't exhaust the repertoire of practical reason. There is one more form, which is also an argument about transitions, but is an even more striking departure from the canonical model. In both the above two forms the winner has appealed to some consideration which the loser had to acknowledge - his own anomalies, or some implicit constant. In the light of this consideration it was possible to show that the transition from X to Y could be shown as a gain, but not the reverse. So there is still something like a criterion operating here.

But we can imagine a form of argument in which no such consideration is invoked. The transition from X to Y is not shown to be a gain because this is the only way to make sense of the key consideration; rather it is shown to be a gain directly, because it can plausibly be described as mediated by some error-reducing move. This third mode of argument can be said to reverse the direction of argument. The canonical foundationalist form can only show that the transition from X to Y is a gain in knowledge by showing that, say, X is false and Y true, or X has probability n_1 and Y has $2n_1$. The two forms we have been considering focus on the transition, but they too only show that the move from X to Y is a gain, because we can make sense of this transition from Y's perspective but not of the reverse move from X's perspective. We still ground our ultimate judgement in the differential performance of X and Y.

But consider the possibility that we might identify the transition directly as the overcoming of an error. Say we knew that it consisted in the removing of a contradiction, or the overcoming of a confusion, or the recognition of a hitherto ignored relevant factor. In this case, the order of justifying argument would be reversed. Instead of concluding that Y was a gain over X because of the superior performance of Y, we would be confident of the superior performance of Y because we knew that Y was a gain over X.

But are we ever in a position to argue in this direction? In fact, examples abound in everyday life. First take a simple case of perception. I walk into a room, and see, or seem to see something very surprising. I pause, shake my head, rub my eyes, and place myself to observe carefully. Yes, there is really a pink elephant with yellow polka dots in the class. I guess someone must be playing a practical joke.

What has gone on here? In fact, I am confident that my second perception is more trustworthy, not because it scores better than the first on some measure of likelihood. On the contrary, if what I got from the first look was something like: 'maybe a pink elephant, maybe not', and from the second: 'definitely a pink elephant with yellow polka dots', there's no doubt that the first must be given greater antecedent probability. It is after all a disjunction, one of whose arms is overwhelmingly likely in these circumstances. But in fact I trust my second percept, because I have gone through an ameliorating transition. This is something I know how to bring off, it is part of my know-how as a perceiver. And that is what I in fact bring off by shaking my head (to clear the dreams), rubbing my eyes (to get the rheum out of them), and setting myself to observe with attention. It is my direct sense of the transition as an error-reducing one which grounds my confidence that my perceptual performance will improve.

Something similar exists in more serious biographical transitions. Joe was previously uncertain whether he loved Anne or not, because he also resents her, and in a confused way he was assuming that love is incompatible with resentment. But now he sees that these two are distinct and compatible emotions, and the latter is no longer getting in the way of his recognizing the strength of the former. Joe is confident that his present self-

reading (I certainly love Anne) is superior to his former self-reading (I'm not sure whether I love Anne), because he knows that he passed from one to the other via the clarification of a confusion, i.e., a move which in its very nature is error-reducing.

Some of our gains in moral insight prove themselves to us in just this way. Pete was behaving impossibly at home, screaming at his parents, acting arrogant with his younger siblings, and he felt resentment all the time and was very unhappy. He felt a constant sense of being cheated of his rights, or at least that's how it was formulated by his parents to the social worker. Now things are much better. Pete now applies this description himself to his former feelings. In a confused way, he felt that something more was owed to him as the eldest, and he resented not getting it. But he never would have subscribed to any such principle, and he clearly wants to repudiate it now. He thinks his previous behaviour was unjustified, and that one shouldn't behave that way towards people. In other words, he's gone through a moral change: his views of what people owe each other in the family have altered. He's confident that this change represents moral growth, because it came about through dissipating a confused, largely unconsciously held belief, one which couldn't survive his recognizing its real nature.

These three cases are all examples of my third form of argument. They are, of course, all biographical. They deal with transitions of a single subject; whereas the standard disputes I have been discussing fall between people. And they are often (in the first case, always) cases of inarticulate intuitive confidence; and hence arguably have nothing to do with practical reason at all, if this is understood as a matter of forms of argument.

These two points are well taken. I have chosen the biographical context, because this is where this order of justification occurs at its clearest. But the same form can be and is adapted to the situation of interpersonal argument. Imagine I am a parent, or the social worker, reasoning with Pete before the change. Or say I am a friend of Joe's talking out his confused and painful feelings about Anne. In either case, I shall be trying to offer them an interpretation of themselves which identifies these confused feelings as confused, and which thus, if accepted, will bring about the self-justifying transition.

This is, I believe, the commonest form of practical reasoning in our lives, where we propose to our interlocutors transitions mediated by such error-reducing moves, by the identification of contradiction, the dissipation of confusion, or by rescuing from (usually motivated) neglect a consideration whose significance they cannot contest. But this is a form of argument where the appeal to 'criteria', or even to the differential performance of the rival views in relation to some decisive consideration, is quite beside the point. The transition is justified by the very nature of the move which effects it. Here the ad hominem mode of argument is at its most intense, and most fruitful.

I would like in conclusion to try to draw together the threads of this perhaps too rambling discussion. I argued at the outset that practical arguments are in an important sense *ad hominem*. As a first approximation, I described these as arguments which appeal to what the opponent is already committed to, or at the least cannot lucidly repudiate. The notion that we might have to convince someone of an ultimate value premiss which he undividedly and unconfusedly rejects is indeed, a ground for despair. Such radical gaps may exist, particularly between people from very different cultures; and in this case, practical reason is certainly powerless.

But the discussion in the second part allows us to extend our notion of this kind of argument. It is not just cases where we can explicitly identify the common premiss from the outset that allow of rational debate. This was in fact the case with my opening example. Both Nazi and myself accept some version of the principle 'thou shalt not kill', together with a different set of exclusions. Rational argument can turn on why he can permit himself the exclusions he does; and in fact, this historic position doesn't stand up very long to rational scrutiny. It was really mob hysteria masquerading as thought.

But our discussion of transitions shows how debate can be rationally conducted even where there is no such explicit common ground at the outset. Now these arguments, to the effect that some transition from X to Y is a gain, are also *ad hominem*, in two related ways. First, they are specifically directed to the holders of X, in a way that apodeictic arguments never are. A foundational argument to the effect that Y is the correct thesis shows its superiority over the incompatible thesis X only incidentally. The proof also shows Y's superiority over all rivals. It establishes an absolute, not just a comparative claim. If I establish that the correct value for the law of attraction is the inverse square and not the inverse cube of the distance, this also rules out the simple inverse, the inverse of the fourth power, etc.

It is crucial to transition arguments that they make a more modest claim. They are inherently comparative. The claim is not that Y is correct *simpliciter*, but simply that, whatever is 'ultimately' true, Y is better than X. It is, one might say, less false. The argument is thus specifically addressed to the holders of X. Its message is: whatever else turns out to be true, you can improve your epistemic position by moving from X to Y; this step is a gain. But nothing need follow from this for the holders of third, independent positions. Above all, there is no claim to the effect that Y is the ultimate resting point of enquiry. The transition claim here is perfectly compatible with a further one which might one day be established, identifying a new position Z, which in turn supercedes Y. As MacIntyre puts it,

we are never in a position to claim that now we possess the truth or now we are fully rational. The most that we can claim is that this is the best account which anyone has

been able to give so far, and that our beliefs about what the marks of 'a best account so far' are will themselves change in what are at present unpredictable ways. <20>

Secondly, these arguments all make their case by bringing to light something the interlocutor cannot repudiate. Either they make better sense of his inner difficulties than he can himself (case 1); or they present him with a development which he cannot explain on his own terms (case 2); or they show the transition to Y to come about through a move which is intrinsically described as error-reducing (case 3). But in relation to the original example of arguing with a Nazi, these greatly extend the range of rational debate. For what they appeal to in the interlocutor's own commitments is not there, explicit at the outset, but has to be brought to light. The pattern of anomalies and contradiction only comes clear, and stands out as such, from the new position (case 1); the full significance of a hitherto marginalized form of understanding only becomes evident when the new position develops it (case 2); that my present stance reposes on contradiction, confusion, screening out the relevant only emerges as I make the transition - indeed, in this case, making the transition is just coming to recognize this error (case 3).

The range of rational argument is greatly extended, in other words, once we see that not all disputes are between fully explicated positions. Here the canonical foundationalist model is likely to lead us astray. As we saw above with the second case, pre-Galilean science is indeed impregnable if we just think of its explicit standards of success: it has no cause to give any heed to technological pay-off. But in fact this pay-off constitutes a devastating argument, which one can only do justice to by articulating implicit understandings which have hitherto been given only marginal importance. Now I would argue that a great deal of moral argument involves the articulation of the implicit, and this extends the range of the ad hominem far beyond the easy cases where the opponent offers us purchase in one of his explicit premisses.

Naturally none of the above shows that all practical disputes are arbitrable in reason. Above all, it doesn't show that the most worrying cases, those which divide people of very different cultures can be so arbitrated. Relativism still has something going for it, in the very diversity and mutual incomprehensibility of human moralities. Except in a dim way, which does more to disturb than enlighten us, we have almost no understanding at all of the place of human sacrifice, for instance, in the life of the Aztecs. Cortés simply thought that these people worshipped the devil, and only our commitment to a sophisticated pluralism stops us making a similar lapidary judgement.

And yet, I want to argue that the considerations above on practical argument show that we shouldn't give up on reason too early. We don't need to be so intimidated by distance and incomprehensibility that we take them as sufficient grounds to adopt relativism. There are resources in argument. These have to be tried in each case, because nothing assures us a priori that

relativism is false either. We have to try and see.

Two such resources are relevant to this kind of difference. First, there is the effect of working out and developing an insight which is marginally present in all cultures. In its developed form, this will make new demands, ones which upset the moral codes of previous cultures. And yet the insight in its developed form may carry conviction; that is, once articulated it may be hard to gainsay. This is analogous to case 2 above, where the spectacular development of technology makes post-Galilean science hard to reject.

Second, the practices of previous cultures which are so challenged will often make sense against the background of a certain cosmology, or of semi-articulate beliefs about the way things have to be. These can be successfully challenged, and shown to be inadequate. Something of the kind was at stake in the discussion above of our changed attitude to suffering. Indeed, that case seems to show both these factors at work: we have developed new intuitions about the value and importance of ordinary life <21>, and at the same time, we have fatally wounded the cosmology which made sense of the earlier gruesome punishments. These two together work to feed our convictions about the evil of unnecessary suffering.

Perhaps something similar can make sense of and justify our rejection of human sacrifice, or - to take a less exotic example - of certain practices of subordinating women. In this latter case, the positive factor - the developed moral insight - is that of the worth of each human being, the injunction that humans must be treated as ends, which we often formulate in a doctrine of universal rights. There is something very powerful in this insight, just because it builds on a basic human reaction, which seems to be present in some form everywhere: that humans are especially important, and demand special treatment. (I apologize for the vagueness in this formulation, but I am gesturing at something which occurs in a vast variety of different cultural forms).

In many cultures, this sense of the special importance of the human is encapsulated in religious and cosmological outlooks, and connected views of human social life, which turn it in directions antithetical to modern rights doctrine. Part of what is special about humans can be that they are proper food for the Gods; or that they embody cosmic principles differentially between men and women, which fact imposes certain roles on each sex.

The rights doctrine presents human importance in a radical form, one which is hard to gainsay. This latter affirmation can be taken on several levels. Just empirically there seems to be something to it, although establishing this is not just a matter of counting heads, but of making a plausible interpretation of human history. One that seems plausible to me goes something like this: recurrently in history new doctrines have been propounded which called on their adherents to move towards a relatively greater respect for human beings, one by one, at the expense of previously recognized forms of social encapsulation. This has been generally true of what people refer to as the 'higher' religions. And, of course, it has been the case with modern

secular ideologies like liberalism and socialism. Where these have appeared, they have exercised a powerful attraction on human beings. Sometimes their spread can be explained by conquest, e.g., Islam in the Middle East, Liberalism in the colonial world, but frequently not: e.g., Buddhism in India, Christianity in the Mediterranean world, Islam in Indonesia. Disencapsulated respect for the human seems to say something to us humans.

But of course, this is a remark from the 'external' perspective, and doesn't by itself say anything about the place of reason. Can we perspicuously reconstruct these transitions in terms of arguments? This is hazardous, of course, and what follows could only at best be a crude approximation. But I think it might be seen this way. Disencapsulated respect draws us, because it articulates in a striking and far-reaching form what we already acknowledge in our sense I vaguely indicate with the term 'human importance'. Once you can grasp this possibility, it can't help but seem prima facie right. A demand is 'prima facie right', when it is such as to command our moral allegiance, if only some other more weighty considerations don't stand in our way. Probably most of us feel like this about the ideal anarchic communist society: we'd certainly go for it, if only...

But of course, the condition I mentioned: 'if one can grasp the possibility', is no pro forma one. For many societies and cultures, a disencapsulated view is literally unimaginable. The prescriptions of general respect just seem like perverse violations of the order of things.

Once one is over this hump, however, and can imagine disencapsulation, a field of potential argument is established. Universal respect now seems a conceivable goal, and one that is prima facie right, if only....The argument now turns on whatever fits into this latter clause. Yes, women are human beings, and there is a case therefore for giving them the same status as men, but unfortunately....the order of things requires that they adopt roles incompatible with this equality, or....they are crucially weaker or less endowed, and so can't hack it at men's level, or...etc.

Here reason can get a purchase. These special pleadings can be addressed, and many of them found wanting, by rational argument. Considerations about the order of things can be undermined by the advance of our cosmological understanding. Arguments from unequal endowment are proven wrong by trying it out. Inequalities in capacity which seem utterly solid in one cultural setting just dissolve when one leaves this context. No-one would claim that argument alone has produced the revolution in the status of women over the last centuries and decades in the West. But it all had something to do with the fact that the opponents of these changes were thrown onto a kind of strategic defensive; that they had to argue about the 'if onlys' and 'but unfortunatelys'. They had a position which was harder and harder to defend in reason.

But one might argue, this is exactly where one is in danger of falling into ethnocentrism. The plight of, say, nineteenth century opponents of women's franchise is utterly different from that of, say, certain Berber tribesmen today. On one account, these see the chastity of their womenfolk as central to the

family honour, to the point where there can be a recognized obligation even to kill a kinswoman who has 'lost' her honour. Try telling them about the Second Critique or the works of John Stuart Mill, and you'll get a different reaction from that of mainstream politicians of the 19th century West.

The gap can seem unbridgeable: there is this claim about honour, and what can you say to that? Honour has to do with avoiding shame, and can you argue with people about what they find shameful? Well, yes and no. If honour/shame are taken as ultimates, and if the fact that they are differently defined in different societies is ignored or discounted as just showing the depravity of the foreigner, then no argument is possible. But if one takes seriously the variety of definitions, and alongside this, if one acknowledges that there are other moral or religious demands with which honour must be squared, then questions can arise about what really should be a matter of honour, what is true honour, what price honour, and the like. The thought can arise: maybe some other people have a better conception of honour, because theirs can be squared with the demands of God, say, or those of greater military efficacy, or control over fate.

The watershed between these two attitudes is more or less the one I mentioned above, whereby one becomes capable of conceiving a disencapsulated condition, or at least of seeing one's society as one among many possible ones. This is undoubtedly among the most difficult and painful intellectual transitions for human beings. In fact, it may be virtually impossible, and certainly hazardous, to try to argue people over it. But what does this say about the limitations of reason? Nothing, I would argue. The fact that this stance is hard to get to doesn't show in any way that it isn't a more rational stance. In fact, each of our cultures is one possibility among many. People can and do live human lives in all of them. To be able sympathetically to understand this - or at least to understand some small subset of the range of cultures, and realize that one ought ideally to understand more - is to have a truer grasp of the human condition than those for whom alternative ways are utterly inconceivable. Getting people over this hump may require more than argument, but there is no doubt that this step is an epistemic gain. People may be unhappier as a result, and may lose something valuable that only unreflecting encapsulation gives you, but all that wouldn't make this encapsulation any less blind.

Even the most exotic differences don't therefore put paid to a role for reason. Of course, no-one can show in advance that the 'if onlys' or 'but unfortunatelys' which stand in the way of universal rights can be rationally answered. It is just conceivable that some will arise which will themselves prove superior, more likely that there will be some where reason cannot arbitrate; and almost certain that we pay a price for our universalism in the loss of some goods which were bound up with earlier, more encapsulated forms of life. But none of this gives us cause a priori to take refuge in an agnostic relativism.

Unless, that is, we have already bought the faulty meta-ethic I have been attacking here. I want to end with the basic claim with which I started, and which underlies this whole exploration; and that is that modern philosophy, and to some extent modern culture, has lost its grip on the proper patterns of practical reason. Moral argument is understood according to inappropriate models, and this naturally leads to skepticism and despair, which in turn has an effect on our conception of morality, gives it a new shape (or misshapes it). We are now in a better position to see some of the motivations of this misunderstanding.

I believe that we can identify in the above discussion three orders of motivation which combine to blind us. First, the naturalist temper, with its hostility to the very notion of strong evaluation, tends to make the ad hominem argument seem irrelevant to ethical dispute. To show that your interlocutor is really committed to some good proves nothing about what he ought to do. To think it does is to commit the 'naturalistic fallacy'.

Second, naturalism together with the critical temper have tended to brand ad hominem arguments as illegitimate. Reason should be as disengaged as possible from our implicit commitments and understandings, as it is in natural science, and as it must be if we are not to be victims of the status quo with all its imperfections and injustices. But once we neutralize our implicit understandings, by far the most important field of moral argument becomes closed and opaque to us. We lose sight altogether of the articulating function of reason.

This distorts our picture not only of practical reason, but also of much scientific argument. And this brings us to the third motive: the ascendancy of the foundationalist model of reasoning which comes to us from the epistemological tradition. This understands rational justification as (a) effected on the basis of 'criteria', (b) judging between fully explicit positions, and (c) yielding in the first instance absolute judgements of adequacy/inadequacy, and comparative assessments only mediately from these. But we have just been seeing what an important role in our reasoning is played by irreducibly comparative judgements - judgements about transitions - by articulating the implicit, and by the direct characterization of transitional moves which make no appeal to criteria at all. To block all this from view through an apodeictic model of reasoning is to make most moral discussion incomprehensible. But it also does not leave unimpaired our understanding of science and its history, as we have amply seen. The connections are in fact close between scientific explanation and practical reason: to lose sight of one is to fall into confusion about the other.

NOTES

1. After Virtue, University of Notre Dame Press, 1981, chapter 2.
2. Utilitarianism, Hackett Edition, Indianapolis 1979, pp. 4-5, also p. 34.
3. op. cit., p. 34.
4. Ibid.
5. Cf., e. g., "What is human agency?" in Language and Human Nature, Cambridge University Press, 1985.
6. Utilitarianism, pp. 8-11.
7. See J.L. Mackie, Ethics, Penguin Books 1977, for an excellent example of the consequences of uncompromisingly naturalist thinking.
8. Cf. e.g., John McDowell, "Virtue and Reason", The Monist, vol 62, 1979, pp. 331-350; and also Alasdair MacIntyre, op. cit. Bernard Williams makes the case very persuasively in his Ethics and the Limits of Philosophy, Harvard University Press 1985, chapter 8. See also "Neutrality in Political Science", in Philosophy and the Human Sciences, Cambridge Univ. Press, 1985.
9. I borrow the term from the interesting discussion in Bernard Williams' Descartes, Penguin Books, 1978, pp. 66-7. See also Thomas Nagel, The View from Nowhere, New York: Oxford 1986. I have discussed this issue in my "Self-Interpreting Animals", in Language and Human Nature, Cambridge University Press, 1985.
10. op. cit., p. 24.
11. "Justice after Virtue", unpublished MS.
12. "Epistemological Crises, Dramatic Narrative, and the Philosophy of Science", The Monist, vol 60, 1977, pp. 453-72.
13. See a parallel notion of the asymmetrical possibilities of transition, this time applied to practical reason, in Ernst Tugendhat's notion of a possible 'Erfahrungsweg' from one position to another, in Selbstbewusstsein und Selbstbestimmung, Frankfurt 1979, p. 275.
14. Arthur Lovejoy, The Great Chain of Being, Harper Torchbook Edition, New York 1960.
15. I am borrowing here from Max Scheler's analysis in his essays: "Soziologie des Wissens" and "Erkenntnis und Arbeit", Werke, vol
16. For instance, this seems to be implicit in Mary Hesse's view: see her "Theory and value in the social sciences", in C. Hookway and P. Pettit (eds), Action and Interpretation, Cambridge 1979. She speaks there of prediction and control as 'pragmatic' criteria of scientific success (p.2).
17. I have discussed this point at somewhat greater length in my "Rationality", in M. Hollis & S. Lukes (eds), Rationality and Relativism, Cambridge 1982, reprinted in my Philosophy and the Human Sciences, Cambridge University Press, 1985.
18. Paris 1975.
19. I have discussed this at greater length in my "Foucault on Freedom and Truth", in Philosophy and the Human Sciences, Cambridge University Press, 1985
20. in "Epistemological Crises,....", p. 455.
21. I have discussed this new affirmation of ordinary life as one of the important constituents of western modernity in Sources of the Self, Cambridge, Mass: Harvard University Press, 1989, Part

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