THE COMMON NEED FOR CLASSICAL EPISTEMOLOGICAL FOUNDATIONS: AGAINST A FEMINIST ALTERNATIVE

The difficulties of justifying a recipe for scientific inquiry that calls for sensory experience and logic as sole ingredients can hardly be overestimated. Resolving the riddles of induction, steadily mounting against empiricism since Hume, has come to seem like an exercise in making bricks without straw. To be forgiven the debt of solving these riddles, whether by feminists or others, would come as a great relief. But such relief, I shall argue, can come only at the very high price of removing any capacity to evaluate inductive inference patterns. And if traditional philosophy cannot tolerate this loss, feminism should tolerate it even less.

Traditional epistemology adopts a framework in which justification is a *logical* or *semantic* relation in which a belief stands to its ground. Critics of traditional epistemological foundations, with feminists prominent among them, would relieve us of the obligations to address the logical problems by advising the adoption of naturalized foundations. The central component of naturalism in epistemology is the teaching that the causal tributaries (psychological as well as sociological) to a subject's belief also bear on that belief's warrantability. We are invited to make the epistemological evaluation of a belief a function also of its causal tributaries, and thereby to fill out the lean basis for justification (namely sensory experience) countenanced by classical empiricism; causal tributaries will ostensibly help us bake the missing bricks.

Contemporary devotees of naturalized epistemology fall into two distinct groups. Approaching from the precept that epistemological 'ought's imply epistemological 'can's is one group of critics who, with an eye to the modeling of cognition, maintain that epistemology must be sensitive to the cognitive capacities of the belief-forming agents to whom epistemological imperatives are issued. Epistemology, they say, must take into account the limitations placed on agents by natural processes responsible for belief acquisition, maintenance and change.[1] And taking Quine's advice (though on the basis of reasons independent of those Quine offers) these naturalizers call on the philosophical community to make epistemology at least in part a chapter of psychology.

"The Common Need for Classical Epistemological Foundations: Against a Feminist Alternative" by Mariam Thalos, *The Monist*, vol. 77, no. 4, pp. 531–553.

Quine called to our notice that the human subject, with the most meager sensory input (primarily the patterns of light irradiation impinging on her retina together with those of pressure waves penetrating her outer ears), comes at a very tender age to be possessed of a highly detailed description of a three-dimensional external world and its history. How does this subject construct a model of the world, adequate to the demands of survival, from the "raw" experience that cannot even be described in propositional form? "If there is one way there are many, but any is a great achievement."[2] Quine simply assumed that the individual human subject produces an empirically adequate description of the world, and consequently that the inference patterns implemented by the human subject must be sufficiently reliable for the purposes of survival. (And what other purposes matter?) Quine's hope was that psychology would set itself the task of discovering precisely those inference patterns that human subjects implement (whether consciously or not), thereby saving epistemologists a good deal of work since "any way is a great achievement."

The second group of naturalism's devotees includes feminists and other academic activists; I will refer to them as "alternativists" from here on. These have swelled the ranks of converts to the naturalization movement, perhaps because they perceive sociologization of epistemology (a subspecies of naturalization) as vital to promoting the interests of politically and socioeconomically disadvantaged groups. They foresee an epistemological theory that assigns higher marks to beliefs formed by members of disadvantaged groups in virtue of the recognition that members of such groups are generally better placed for producing true beliefs. Advancing a holist critique of science[3] (but again from motivations that Quine himself would not embrace), alternativists recommend the replacement of logical foundations with sociological theory and promote the view that the psychological (and hence also the sociological) origins of a belief are relevant to the question of its evaluation; on this program the subject's gender, race and socioeconomic identity become relevant to her or his belief's epistemological virtue. Alternativists hold that the disproportionate emphasis placed by traditional efforts on logical concerns is due to political naiveté in the history of a subject that hails from an age of philosophical innocence in which epistemologists on both sides of the rationalist-empiricist divide believed in the human capacity for cognitive objectivity: on the rationalist side in the detachment of reason, on the empiricist side in the possibility of deriving synthetic generalizations of a scientific cast directly from sensory experience alone. But the time for naiveté is past, we are urged. The age of epistemological modesty, inaugurated by Duhem and Quine, the era of holism and naturalization, is upon us. It is time for science without dogma—time for empiricism without illusion.

In this age of modesty we are to have absorbed the truth that our beliefs about the world "face the tribunal of sense experience not individually but only as a corporate body."[4] It follows immediately that sense experience cannot be a guide to the isolation of error in a collection of beliefs. We are told that *any* belief in a corpus can be rationally held true in the face of recalcitrant experience, if the subject is willing to overhaul appropriately compensatory elements in the "web" that is the corpus of belief; conversely, no article of belief is positively immune to revision. On the web model (that is contrasted with the edifice model) of the corpus, the choice of what goes by the board in the face of disappointing encounters with the world is not—and cannot be—dictated by a recipe that is in turn an article of scientific methodology. The choice is legitimately made—and routinely—on the basis of antecedently held value or prejudice. Since for holists any belief can rationally be held true come what may, the epistemological guidelines of holism must of necessity be thin. They can, in effect, be no more stringent than a rule of noncontradiction, so long as they constrain the subject to make modest concessions to experience now and again. Anything more stringent than consistency can be regarded only as a "rule of thumb."

Traditionally, the aim of epistemology has been to promote the acquisition of true beliefs. This is no less an aim of mainstream naturalism in epistemology.[5] Now a variety of alternativist epistemologists share this common goal inasmuch as they have joined in support of the thesis that there are a variety of patterns for arriving at beliefs, and some are to be preferred to others in virtue of the fact that they are more productive of truth. No doubt these alternativists still consider themselves bound by a commitment to register criticism of execrable but socially approved beliefs concerning the inferiority of disadvantaged groups. Such criticism, if it is to be dispensed on a basis neutral with respect to the socioeconomic and gender origins of the subjects of belief, has need of a standard by which inference *patterns* are rated independently of the subjects to which the beliefs in question are attached. Such a standard, I will show, is unavailable on the basis of naturalized foundations. The reason is that naturalism is committed to a doctrine that the primary subject of epistemological commendation is the agent, and a neutral standard cannot be constructed on the basis of agent-relative ratings. I conclude that a naturalistic position is a tactical error for those with a need for an agent-neutral standard of evaluation, if they are not to suppress universal condemnation of the biases they abhor.

Now the traditional framework for framing epistemological questions is designed specifically for the brand of denunciation alternativists would like to have available. Thus rather than oppose traditional foundations, alternativists should be prepared to cast their lot with those of the traditional school. It is only by advancing the brand of rational censure for which traditional foundations are

designed, condemning *every* subscriber of bias without regard for her or his gender or socioeconomic origin, that feminism and other alternativisms will attain their social and political aims.

1. Questions

I will reserve the terms 'inference pattern' and 'pattern' to denote logical entities: logical schemas or recipes, composed of a set of premises or grounds and a conclusion. Examples are: (1) Bayesian patterns of adjustments to prior probability assignments on the basis of new evidence *via* conditionalization rules; (2) statistical assignments of confidence to hypotheses based on calculations involving relative likelihood; (3) "I wish p, therefore p." Only the first two examples are serious contenders for attention in epistemology of science. The term 'process' I will reserve for physiological or psychological *means* of pattern implementation; these are *causal* affairs. Examples of processes include mechanical and physiological analogs of theorem-proving, mechanical implementations of Bayesian or statistical procedures, as well as streams of wishful thinking, modes of brainwashing, habits of adopting beliefs expressed by others, and so on. We can think of an actual inference as having two components, in direct analogy with a distinction between software and hardware. The "software" aspect of an actual inference is its logical form: every inference is an instance of at least one inference pattern. The "hardware," by contrast, is its psychophysiological implementation: the ground of the inference serves as input and its conclusion serves as output of some one causal process.

With this distinction in mind we can identify (at least) two potential questions for inquiry. The first—call it the *logical* question—is the question whether a belief B is justified relative to a subset of beliefs Q that I will call the *ground*, which is presumed to be justifiably held by subject S. This is a question of the heritability of *warrant* among a set of beliefs in exactly the same way that validity is a question of the heritability of *truth* among a set of propositions. And like issues of deductive validity, it turns on the relationship between the truth values of B and Q in the set of possible worlds, most especially the actual world.[6]

The second question—call it the *generation* question—concerns how adjustments to the beliefs of S are systematically influenced by properties of the social system in which S is embedded. (Errors are of especial interest, but we are not restricted to explaining pathology alone. An account of belief propagation is a species of empirical study: the study of the coming into being and passing away of the natural entities that are beliefs.) How, for example, does S come to assent that women do not have rational minds, or to be systematically neglectful of the cultural and intellectual achievements of African civilizations, or to regard the

social properties of a minority group as intrinsic natural traits? These are to be distinguished from the associated logical questions (how can one be justified in believing there are other minds, what is the status of a memory in relation to the epistemic status of the experience that gives rise to it, and how can we distinguish the accidental from the necessary) in that the logical questions concern the practice of empirical confirmation, while the generation questions presuppose it.

The generation question is uncontroversially a scientific one, since it requires systematic disclosure of contingent matters of fact: wherefore some beliefs, and not others, come to be and pass away within a particular population of believers *S*. As a scientific question it is not a purely logical question. Now naturalism is the thesis that the answer to the first question depends on an answer to the second; the traditional position is that they are independent. In this section I will argue for independence, a claim which requires argument since the logical issue might be reasonably expected to depend on the nature of the relationship of the content of *S*'s beliefs *Q* and *B* to the truth about the actual world, the determination of which is rightly regarded a scientific (i.e., empirical) matter. Since scientific inquiry does not obviously fail to bear on the first question, it remains open whether our treatment of the logical question should be responsive to findings concerning the generation question. I will argue that it should not. The logical question, I will show, is never concerned with the pedigree of a belief, but rather always with the merit of the best pattern of inference of which the belief and its ground is a substitution instance.

A schema for an answer to the generation question will most likely take the following form:

Schema *G*: Members of S, in their efforts to comprehend the rapid continuous flow of events (especially social events), are as much causally influenced by < . . . > as by conscious processes or attention to formal patterns of judgment formation. Consequently < . . . > exerts pressure on investigations of a scientific nature. As a result it influences the beliefs shared among large segments of the population. And this is the predominant reason why women are perceived to be intrinsically more primitive than whites, etc.

In this schema '< . . . >' is a placeholder for names of psychophysiological processes controlling the evolution of *intrasubjective* belief; I am imagining it will make reference to something like forces or automatic processes of judgment formation that are comparatively difficult for subjects to override by conscious effort.[7] A proposal conforming to Schema *G* presents a mechanism for the adoption, perpetuation and dissemination of beliefs in a population *S*, thereby

giving account of intersubjective mechanisms responsible for shared true beliefs as well as those that result in systematic error since (if true) the correct instance of the schema explains the propagation of true and false beliefs alike.[8]

The logical question, by contrast, concerns the formulation of acceptable rules of (scientific) induction. As standardly illustrated, this is the problem of fitting a continuous curve to a finite number of data points. The curve-fitting problem is well-known. It is a standard tool for illustrating Hume's gap between the observed and unobserved.[9] Now one reason that empirical findings are considered to bear on the logical question is that, in advance of knowledge regarding the form of data or the nature of data-gathering mechanisms, we cannot determine the width of the gap between that which follows deductively from observation and that which does not. (It is logically possible that we are able to observe directly the deepest laws by which nature operates.) For example, the gap between the hypothesis "All ravens are black" and observation that ravens A, B and C are black, cannot be determined before we recognize that the enumerated ravens do not exhaust the class about which the hypothesis projects; further, that enumeration fails to exhaust the relevant class in a particular way, namely by falling considerably short of the denumerable infinity of ravens that might—for all we know—be the actual referent of the hypothesis. Which further empirical matters are relevant to the logical question? This is a comprehensive debate.[10] I will concern myself here only with whether an answer to the logical question should be affected by correct instances of Schema *G*. I will conclude that it should not. Every candidate answer one might care to name in connection with the logical question is compatible with every instance of Schema *G*. To put the substance of my claim another way, the logical question is the question whether the inference from *S*'s current base beliefs *B* (stipulated to be justified) to *S*'s inductive conclusion *Q* is a substitution instance of an inductively reliable—though not necessarily indefeasible—form of inference; from this it follows that no reference to *S* need even be made in the framing of this question. (Reference to *S* is made only inessentially for the purpose of picking out the relevant *Q* and *B*; the reference can be eliminated by specific enumeration of *Q* and *B*; on elimination the question becomes: can *Q* serve as a reliable ground for *B* in the actual world?) To the logical matter, the matter of extraction—the psychophysiological processes by which *S* arrives at *Q*—is not relevant. The logical issue can be settled even when no answers to process questions are known.

My case for this is simple. First I stipulate that epistemic commendation attaches to inference patterns. Now suppose *S* makes a set of observations *D* and concludes *C*. Since, as I've stipulated, commendation attaches to inference patterns, to settle whether *S*'s inference to *C* is warranted, we must consider all possible schemas of inference passing from *D* to *C* and ask whether any of these

patterns is reliable. *S*'s inference receives a portion of epistemic commendation in proportion to the commendation due to the most reliable pattern of inference of which that inference is a substitution instance. Thus the logical question assigns epistemic commendation in proportion to the commendation due to the most reliable pattern of inference of which that inference is a substitution instance. Thus the logical question assigns epistemic commendation to *S* only in a *derivative* sense. The primary subjects of commendation are the patterns of inference from *D* to *C*. The primary subjects of epistemic commendation are items in relation to which question of process of belief generation do not even make sense. Inference patterns themselves are the primary subjects of the logical question. Thus the inductive question is exactly parallel to the deductive question. If I believe that *p* and also that if *p* then *q*, then I am deductively justified in believing *q*, *not* because my process of generating *q* is somehow better than other processes I could have used, but because *modus ponens* is a valid form of inference. In fact, I might generate *q* purely out of wishful thinking, and my conclusion would still be deductively valid. The questionability of my process for generating *q* does not diminish the validity of my inference in the least. Now since the epistemic value of an inductive inference does not depend on the process used to generate the conclusion, every hypothesis conforming to Schema *G* is consistent with the correct answer to the logical question.[11] The independence of the two issues is proved.

Surely, you say, my argument cannot be satisfactory to my opponent. For my opponent may easily fault my initial stipulation that (inductive) inference patterns are themselves the primary subjects of epistemic commendation, an assumption that coincides exactly with adoption of the traditional epistemological framework, and one which guarantees the primacy of the logical question by making attributions of epistemic virtue parasitic upon attributions of virtue to inference patterns. It is this very premise which most requires argument. The critic rightly challenges the stipulation that subjects receive epistemic commendation only derivatively in proportion to whether they do or do not employ reliable patterns.[12] I will devote the remainder of this section to argument that any alternative construal of the logical question undermines the important project of rational evaluation, which I take to be a primary task of epistemology. Alternative conceptions of the logical question, if adopted, would culminate in a rejection of the possibility of rational evaluation of inference patterns. Thus my initial stipulation that subjects receive commendation derivatively will receive an argument.

Suppose that the primary subject of epistemic commendations is the agent or agent's actual psychological process of arriving at a belief *B*. (Recall some examples of such processes: implementations of proof algorithms, concession to authority, conscious or unconscious repetition of sentences expressing a target

belief, tossing a coin, and the list goes on indefinitely.) Now can it make sense to assign commendation to an inference pattern, say *modus ponens* or a Bayesian adjustment of probability assignments, of which the subject's actual inference is a substitution instance, based on the commendation we assign the subject? Suppose S believes p, that if p then q, and (finally) q. Diverse instances of the familiar processes of reasoning by which humans arrive at beliefs can each underwrite this substitution instance of *modus ponens*. Thus S may employ any number of processes by which to arrive at q; she could either (1) implement a mechanical proof algorithm that conforms to *modus ponens*, or (2) she may imagine q, find it pleasing and opt to believe it. If she were to implement the former process, she—and derivatively *modus ponens*—would receive one (presumably high) epistemic rating; if the latter, she—and subsequently *modus ponens*—would receive another (presumably lower and therefore incompatible) rating. Thus unless the evaluation of inference patterns is conducted without regard for the evaluation of the particular subjects implementing them, the rating system for patterns is doomed to be a collection of colossal contradictions (unless, of course, the ratings for subjects is itself based on purely logical rather than causal criteria, in which case the ratings may be consistent). As soon as we require a consistent rating for inference patterns, we require that this rating be screened off from the ratings due to subjects, with the screen being unnecessary only on condition that ratings for subjects follow logical criteria. The point is that if we give up on the project of evaluating patterns of inference in a logical framework, we will have no resources with which to evaluate inference patterns consistently. We cannot use evaluations passed on subjects or processes to recover a (consistent) set of evaluations for inference patterns. Thus the deficit cannot be made up from the pockets of naturalism.

Now one may suggest that we rate subjects on naturalistic criteria, and make up the deficit in pattern evaluation by a traditional logical analysis. In that case, the ratings for patterns will be independent of the rating for subjects. Why should we take this course? Recall that one major motivation for introducing naturalized foundations is to make up a perceived shortfall in the resources of the logical program, which has, to date, produced no satisfactory justification of any inductive inference pattern. If we leave the problem of rating patterns as we found it, then naturalism does nothing to lighten the original burden. We are no further along than when we began. But perhaps we can yet rate *subjects* via naturalistic prescriptions, whatever lacks remain in our capacity to rate patterns. This, arguably, is some progress. But if the rating systems are independent, what confidence can we have that the rating of subjects has anything to do with truth? In fact we can be sure that it does not if it is genuinely independent of the rating for patterns. For, if ratings for subjects were somehow linked to the production of

true belief, then we would be able to recover from it a rating for patterns (by a process of filtering out other factors on which subjects are rated) since this depends on truth conditions alone; the latter, however, is precisely what I argued we cannot do. I conclude, then, that as long as we affirm a need to rate inference patterns, we cannot do without traditional logical foundations. And if such foundations become available, then supplementing them with additional resources for rating subjects is both redundant and confusing.

I will argue in the next section that feminists have a clear and urgent need for rating inference patterns. Without the capacity to rate inference patterns the feminist has no basis for dispensing criticism on grounds neutral to a subject's gender or socioeconomic origin. And without this capacity the feminist cannot condemn bias universally. Thus even the feminist must regard the logical question as a primary, even if not necessarily the sole, epistemological concern. And it is thus a tactical error for feminists to set themselves against traditional foundations.

Are there better arguments than so far considered for the thesis that psychology must bear on epistemology? The best argument for taking the point that the logical question depends on more than *a priori* (logical) considerations is due to Friedman.[13] Friedman argues that the prospects for an *a priori* justification of scientific method (what I have been calling *induction*) are negligible for two fundamental reasons (both of which go back to Hume): (i) the epistemic advantage of any pattern must be linked to its tendency to produce true (or at least approximately true) beliefs; and (ii) no incurably nondeductive pattern (which a scientific method must be) is logically guaranteed to yield true conclusions on the basis of the sort of observations available to humans because, relative to possible observations, there is no inductive pattern more reliable than every other in every logically possible world. A determination of the best inductive pattern, whether it be Bayesian or statistical or neither, for any particular possible world depends on the details of that world. These details can be revealed only in empirical inquiry.

Even so, Friedman's argument does not support the conclusion that considerations of process bear on the logical question.[14] Friedman argues that the reliability of a pattern of belief formation M depends on the manner in which the actual world would present itself to us if the belief (C) to which it leads were true. If so, then to *determine* whether M is reliable, we must determine whether C is true.[15] To oversimplify, if in 100 trials a coin produces r heads, we are justified in assigning high marks to a method M that itself confers high ratings on the hypothesis that the coin is disposed to turn up heads at the rate of r, only if there is an argument that adduces reasons that the hypothesis will produce accurate predictions, especially for circumstances like those obtaining in our trials; this argument can be made only on condition that we know what the world is like, and

especially that we know what our experimental circumstances are like. Now a pattern *M* might rate more highly than a pattern *N* by Friedman's prescriptions. But no assignment of a reliability rating requires determination of actual processes by which human beings arrive at beliefs. And the converse is also true: determination of the actual processes by which human beings form beliefs advances in no way the determination of the reliability of a given pattern *M*. The commendation Friedman enjoins us to dispense is to be attached to patterns. Thus Friedman's argument cannot be pressed in service of an alternativist conception of epistemological foundations.[16]

Other writers have advanced the relevance of generation considerations on the logical questions. Goldman argues that traditional epistemology has formulated advice for the direction of the mind without taking under consideration the cognizers' capabilities.[17] As a result it has recommended rules and prescribed patterns which human subjects cannot in actual practice implement in view of certain psychological limitations; traditional epistemology has ignored the precept that 'ought' implies 'can'. An epistemology that takes its regulative role seriously must be one that tailors its advice not to the "ideal" subject, whoever he might be, but to the actual subject of the prescription. The cognitive agent is subject to psychological (as well as physiological) laws. Hence psychology is relevant to epistemology.

In support of the same conclusion, Kornblith offers what he takes to be an argument discrediting the traditional attitude toward epistemology, an attitude he terms the "arguments-on-paper thesis"—essentially equivalent to my initial stipulation that commendation attaches primarily to inference patterns—the view that a person has a justified belief in a particular proposition "just in case that proposition appears on the list of propositions that person believes, and either it requires no argument, or a good argument can be given for it which takes as premises certain other propositions on the list."[18] Kornblith offers an argument that the arguments-on-paper thesis is false. He directs us to consider Alfred who justifiably believes that *p*, justifiably believes that if *p* then *q*, and believes that *q* as a result of wishful thinking. Now according to the arguments-on-paper thesis Alfred is indeed justified in believing that *q* since there is a good argument that can be given for *q* on the basis of propositions Alfred already believes (and justifiably). Kornblith, however, maintains that Alfred is *not* justified in his belief that *q* because he fails to believe it *on the grounds submitted by that argument* (or some other valid basis). For Alfred to be justified in believing that *q*, maintains Kornblith, that belief must *depend in a causal way* on his respective affirmations of *p* and **if *p* then *q***. Questions of justification of belief must be intimately tied to questions about the sorts of processes responsible for the presence of those beliefs. Hence Kornblith's argument, if correct, would not only serve to discredit

traditional approaches to epistemology, but would also establish a connection between process and justification.

To offer this argument a critic must adopt the attitude (as Kornblith does) that epistemic commendation attaches in the first instance to agents. (Kornblith offers us nothing more than his own unsupported judgment that Alfred's belief in q is unjustified because it is the result of wishful thinking.) I refer this critic to arguments laid out at the beginning of this section. The arguments there offered for declining the suggestion to attach epistemic commendation directly to agents establish good reasons to embrace the arguments-on-paper thesis.[19]

Kornblith's concerns suggest there might be an intermediate position between the arguments-on-paper thesis and the attaching of epistemic commendation in the first instance to subjects. It might be supposed that there is an alternative that has us assign commendation to subjects on the basis of that commendation due to the inference pattern they *actually* employ (as distinct from assigning commendation on the basis of the epistemic regard due to the *best* pattern of which the subject's inference is a substitution instance). Consider now the question: what grounds an attribution that subject S is employing pattern P? Suppose we ask the subject to report on her reasons for arriving at her conclusion. Would that help us to identify a basis for the attribution? No. The subject's report helps us to identify her psychological *process* in the same way that questioning Kornblith's Alfred would indicate he arrived at his belief by wishful thinking. But interrogating Alfred will not help us discover that his inference is an instance of *modus ponens*. The reasons is that inference patterns are inductive analogs of deductive argument *forms* or *schemas*. An actual argument can be an instance of any number of argument forms; likewise an actual inference can be an instance of any number of inference patterns. A report on the subject's psychology cannot fix the inference pattern because the inference pattern does not inhere in the subject at all. Thus we cannot award subjects epistemological merit on the basis of *the* pattern they actually employed because there is no such unique entity. Charity in judgment of a subject is not only recommended: it is positively required.

But we cannot leave Kornblith's concern here, for the conclusion we have registered (namely that the only empirical results relevant to the logical question concern the issue of how reliable is the best inference pattern of which S's inference is a substitution instance) seems to run afoul of the approved precept: ought implies can. We are subject to the criticism that, *if* the answer to the logical question applies to any subject, it nevertheless does not apply to actual human agents since human agents are subject to process constraints when passing from belief to belief. This concern deserves an answer. Without further delay, here it is. Suppose it is true that human subjects are not in a position to implement the

advice of epistemologists on the topic of induction. Then so much the worse for humans. If the epistemologies can have nothing but condemnation for the sorts of methods humans can practicably employ, then humans are certainly in a bad spot. But epistemic advice is not a palliative; it is a corrective. Epistemology should tell us just how much confidence we can legitimately maintain in our beliefs as purported truths, not compensate for human deficits.

The objection, however, misconstrues the force of the epistemological imperative I envision. Answers to the logical question will *not* take the form: beliefs derived by pattern *M* are justifiable whereas those derived by pattern *N* are not. Rather the answers will come in the form: pattern *M* is more reliable than *N*, which in turn is more reliable than *L* ; and agents will be invited to adopt *any* pattern more reliable than the worthiest one of which their current judgments are instances. In other words, a full account of the logical question will *rank* patterns of inference according to a standard of reliability for this actual world. It might even rate patterns of collecting data. Somewhere in the ranking will be the worthiest pattern of which my judgments are instances; somewhere will be ranked the worthiest associated with yours; perhaps they are the same pattern, but we cannot determine this until the traditional epistemologist's task is effectively complete (which is to say we are a long way from making these determinations). And if it should turn out that the best pattern associated with your judgments is more reliable than that associated with mine, then I am better advised to imitate you than to persist in my feeble habits, and better yet to adopt a pattern that is more worthy than yours. Hence, as long as I am not employing the best possible pattern, epistemology will have some advice for me.

The response to the ought-implies-can criticism is, finally, that it is overly pessimistic. Epistemic life is very complex: what reasons have we to believe that humans cannot employ relatively reliable patterns of induction? It is said that because positivism is wrong (in that simple empirical claims have no conditions of verifiability all their own), there can be no objectivity and hence no objective reliability.[20] Positivism is wrong also because there is no genuinely "raw" data. And because observation is laden with theory there is *no* possibility of reliability in the enlightenment sense. Since the observational can never be marked off from the theoretical, the logical question never even comes to be relevant since there is no "raw" data on which to apply inductive patterns. This point, finally, takes us past the issue of ought-implies-can, and moves us firmly onto the ground of dogma.

However the lack-of-objectivity point is often made hyperbolically. No one, and especially not the alternativists, supposes that the referent of the term 'theory-ladenness' undermines scientific pursuit entirely. Taking holism and theory-ladenness as points of departure from traditional epistemology, alterna-

tivists—feminists especially—standardly reject the conventional privilege granted to "laboratory" science. Perhaps it is right to deny institutionalized science the privilege it currently enjoys over its less well-regarded counterparts. But an official reproof of institutionalized science cannot substitute for condemnation of the scientific enterprise as such, much less of traditional epistemological foundations. Institutionalized science might very well turn out to be a failure even by the traditional epistemologist's standards.[21] Ideal scientific inquiry and institutionalized science are not one and the same thing—and especially not as evaluated by traditional accounting methods. In fact one primary aim of traditional foundations is to align the institutions of empirical inquiry with ideal methods of inquiry.

Now in fact, alternativists do not uniformly believe any thesis to the effect that there are no patterns worthy of implementation. Some theorists explicitly provide for patterns more reliable than others (though they do not call these "patterns"). They talk about the *privileged perspectives* of women or African Americans. Some take the privilege to be grounded in biology. Others take it to be shaped by sociological factors. Still others locate the privilege in the specific experiences or "standpoints" of the privileged subjects. Each of these views takes it for granted that there exist "patterns" for inference (though some of these patterns may not be available to everyone) such that the adoption of these patterns guarantees truth more reliably than adoption of their competitors. For the sake of specificity let us focus on the claims of feminist standpoint theory. Stripped to essentials, standpoint theory has it that the standpoint of women (their social status and concomitant experiences, including their "women's labor" and their child-rearing activities) affords women deeper insight into reality because it limits their perspectives less than the standpoint of men limits theirs. Beliefs, as the theory goes, are not unmediated, unsocialized responses to present experience; beliefs, rather, are at once the products of present experience, past socialization *and* social position (the last is identified as the standpoint). The socialization and social position of members of advantaged groups places limitations on their ability to re-evaluate biased beliefs, whereas the social standpoints of oppressed groups puts their immediate experience at odds with beliefs shaped by their background socialization. And this gives the disadvantaged of society a distinct advantage when it comes to knowledge; the disadvantaged are most well-placed to notice discrepancies between socialization (the salient features of which are shaped by the advantaged group) and their immediate experience. "[H]egemonic groups characteristically have experiences that foster illusory perceptions about society's functioning, while subordinate groups characteristically have experiences that (at least potentially) give rise to more adequate conceptualization."[22] For example, since women are largely denied access to positions of power and wealth, espe-

cially positions of power over men, they will feel economic and social resistance when they bid for such positions. On the other hand, they are taught to believe that women, due to their inferior natures, are not deserving of positions of power. Their experience of resistance can suggest an explanation of women's failure to attain positions of power different from that prescribed by the socialization filtered through popular culture.

Standpoint feminist theorists suggest that we will find an alternative to classical epistemology if we focus on women's experiences and women's lives. The shift in focus, they argue, will emphasize the strengths of qualities that have been associated with the feminine and consequently devalued. Standpoint theorists argue that studies in the sociology of belief have demonstrated that the more empirically and theoretically adequate beliefs (namely those that challenge conventional views about women and members of other oppressed populations) are *in fact* being produced by persons (namely women, feminists) working within nonconventional (namely feminist) research patterns and prescriptions. They try to demonstrate the relationship between "better" theory and nonstandard patterns. But this is *precisely* what traditional investigations of the logical question purport to do. Standpoint theorists are not giving *alternative* epistemologies; they are working within the traditional framework and using the traditional standards. Standpoint theories are not alternative theories at all; their positive proposals differ from classical proposals only in that they prescribe different patterns.

Harding's expression of standpoint theory is an exemplary version.[23] She makes clear that what matters from the point of view of the epistemological question at issue is not the *identity* of women or even their *experience*; for experience is itself shaped by social relations. Rather what matters from the point of view of epistemology is consideration of a *pattern of inference* which gives due regard to the lives and perspectives of women as an added corrective; these patterns are to be preferred over those that fail this condition because they prevent certain distortions and correct for obvious bias that would otherwise be introduced.

These sorts of considerations, rather than subverting the view that there are patterns of inference to be preferred over others, instead *support* it. They imply that women, when sufficiently sensitized to political issues, will employ patterns of inference that will produce truth more reliably than patterns used by others less well-placed. And some theorists are sympathetic to the view that nonwomen, when "thinking from the experience of women" can do likewise.[24] But if this is so, then feminist theorists should be sympathetic to traditional epistemology, not hostile to it. Traditional foundations, when once laid, will give feminists the resources for a demonstration of the unreliability of patterns on which they now can cast but the palest of suspicion.

2. Rational Censure

An example will serve to illustrate the point that feminists cannot do without traditional foundations. Consider Martha who believes that most women, especially the "liberated" ones, are scheming, manipulative and lacking in the levelheadedness of which men are naturally endowed. Martha is a citizen of a middle-class, middle-American town with a politically conservative husband and few close friends. Having had a college education, she nevertheless sacrificed any ambitions for a career suited to her desires and abilities in favor of supporting her husband's ambitions. With the exception of a few heroines of film and fiction, Martha considers most of the women of her acquaintance petty and manipulative by nature. She considers this cluster of low traits a cross that she too must bear as part of her feminine nature, but maintains that she has worked hard to overcome the tendency in herself. Martha believes that, since women are generally manipulative and wanting of an objective disposition, men are generally of more estimable moral and rational fiber; men are therefore more to be trusted with the serious and weighty business of running industry, academy, and state.

Now every feminist wishes to register a complaint against Martha's "consciousness." On what basis can a feminist theory submit a convincing critique of Martha's judgment? On the naturalized treatment of epistemological questions the feminist is to direct critique at Martha herself, her situation or the pedigree of her judgments. The feminist's disapprobation of Martha is condemned to be *ad hominem* inasmuch as commendation itself (by the lights of naturalized foundations) is an *ad hominem* affair.

The source of the trouble in this case (as it is in innumerable other cases) is the fact that Martha's gender is precisely in alignment with the factors identified by naturalistic feminism as materially positive in their (causal) contributory effect on rational judgment. Martha's gender is, as some feminists would have it, a positive force as a tributary to her stream of consciousness. Despite this, her stream of judgments is more an offering to the mainstream of ills than a counter or antidote to them. Now it is indeed possible to give an explanation of Martha's belief without giving an account of which effects (or streams of judgment) are positive and which negative. (This is precisely what the independence thesis of Section 1, above, argues.)

But in order to advocate or prefer one stream of judgments over another, and thus to submit a reproof of Martha, the feminist is positively in need of an account of the reliability of inference patterns. Some will respond that it is possible to promote points of view rather than inference patterns; and that this satisfies the political imperatives in the service of which they speak. Indeed the majority of feminist and black theorists advise that we should give priority to the black point

of view, to the woman's point of view, in general the point of view of the beleaguered, because his or her response is more likely to be a correct appraisal of the truth, or at least a less distorted construction of the facts, than the response of the advantaged person. This reply, however, is not available in Martha's case.

While feminists have recognized this problem, they have treated it as if it were merely the pragmatic problem of finding the right way to understand the collective perspective of women.[25] But this problem is not merely a pragmatic one; it is an essentially theoretical problem. And it is insuperable. Any account of the perspective of women must contend with Martha; no account of the collective perspective of women can leave any individual woman out of consideration altogether. It might very well be easier for Martha to come to set aside the biases she now maintains than it would be for her husband who subscribes to the same prejudices, principally because Martha's beliefs are more likely to come in conflict with her experience than her husband's beliefs are likely to come in conflict with his. But Martha's *actual* consciousness is not marked by perturbations. How can Martha's point of view—which is essentially the point of view *against* which a women's perspective is to be contrasted—to figure in the perspective of women? We cannot disqualify Martha from figuring in a standpoint of women, because the horde of Marthas is practically without number, and because her experience is itself largely responsible for the specifics of her belief. Martha's failing is that she has not risen *above* her socialization, probably for reasons no more *recherché* than laziness. And for this failing no standpoint theory or anything like it can hold her accountable. Only an account of epistemic responsibility based on logical considerations can level this charge at Martha. Consequently only an evaluation of patterns deriving from logical considerations can ground the feminist critique of Martha. Thus, far from subverting the ends of feminism, traditional foundations are ultimately in its service.

One might suppose that naturalized foundations fare no worse than the traditional variety in this regard. After all, no inductive inference pattern is indefeasible; even if Martha were implementing some virtuous inference pattern she might yet arrive at a false belief, and the traditionalist would have no words of censure for her. The point, however, is that, whereas the naturalist feminist can have no words of censure for Martha (since, as the theory goes, Martha has already done her epistemological part by being female), a feminist advancing *traditional* foundations is at no loss for words of condemnation for Martha's intellectual complacency. It is therefore a great tactical error for alternativists to set themselves against the logical tradition in epistemology.

Those who would abandon traditional foundations in favor of something like standpoint theory expunged of all references to logic and truth are subject to a further powerful criticism. They are vulnerable to the charge that they occupy

self-serving positions of critique since, without a neutral logical standard, every justification must be attached to a point of view.[26] The view that we can recommend a standpoint simply on the basis that it belongs to a disadvantaged group must explain allegiance to *itself* as the consequence of adopting (after some fashion) the concerns of women or some other disadvantaged group. Suppose a question is raised: why not recommend a standpoint on the basis that it belongs to an advantaged, rather than a disadvantaged, group? Why not adopt the standpoint of men, or white persons, or heterosexuals? This option, presumably, is just as justifiable, from some standpoint, as the original suggestion is justifiable from the standpoint of the disadvantaged.

To this charge it cannot be replied that the asymmetry between advantaged and disadvantaged points clearly to a particular option. A simple revelation of an asymmetry in standpoints and limitations does not by itself amount to a clear indication of a ground for preferring one branch of the asymmetry against the other. An epistemological judgment in favor of a particular branch of an asymmetry points to something deeper: that the asymmetry reflects an epistemologically relevant ordering; that the asymmetry is, perhaps, a measure sensitive to truth production. Therefore discussion of truth production is inelimenable in epistemological concerns, even when it is suppressed. In the final analysis, the ordering implied by a judgment of preference need not by any means rest on an assumption that humans have a capacity to rise above socioeconomic or gender interests; it need rest on nothing more controversial than that some patterns of judgment are more truth productive than others. Without reference to such an ordering of patterns, we are adrift on an ocean of conflicting interests and preferences without a capacity to chart a course since the seascape, though not featureless, is nevertheless void of relevant markings.

3. Objections: Liberalism and Dualities

Consider the following objection:

> The argument of Section 1 overestimates the ability of theoreticians to rise above their prejudice to undertake the project of pursuing the logical question there described. In order to pursue that project the investigator must be able to attend to the question "objectively"—without allowing preferences for one pattern to bias her evaluation of it. But the very possibility of this is precisely what all forms of feminism reject. Since there are no epistemological standpoints "outside" social reality, all claims to knowledge, including those to philosophical knowledge, are shaped by their social, material and gender origins. The logical question cannot be pursued fruitfully. We must therefore set it aside.

In one breath, this criticism is both ingenious and self-deflating. If it is correct, then not only are the arguments in Section 1 tainted, but then so is the objection's

own substance. We are left with no basis whatever for conducting philosophical inquiry. Now while there is something quite correct about the claim that all belief is shaped by its social, material and gender origins, this does not in itself invalidate any particular belief. It is well known that an argument can be both a substitution instance of a valid form of argument and a substitution instance of what is conventionally regarded as a "fallacy of reasoning." By instantiating a valid form of argument it is valid; and no further considerations can overturn this logical judgment—and particularly not whether the argument is also a substitution instance of a fallacy. So too in the realm of epistemology. An actual case of inference can be at one and the same time a justifiable form of inference (by instantiating a reliable pattern *M*), and it can be shaped by adverse social and political forces. By implementing the relatively reliable pattern *M* it is a warrantable inference. I have argued the point that no further considerations of a belief's material and social origin can overturn the epistemological judgment.

To put the point another way, my counter to the objection is exactly like my counter to the original claim that no judgment of an empirical nature can be reliable. Once again I refocus the question as a question about *pattern* rather than *subject*. To the question about pattern I argue that the objector's point misses the mark.

The objection of this paragraph can be construed as an objection to what has been dubbed "liberalism," the view that we can learn, through communication and argument, to understand another's viewpoint and achieve a more balanced perspective—a more "objective" perspective—of reality. The view I am now defending might well be interpreted as a liberal view in this sense. I will embrace the "liberal" label if the critic will accept that a liberal view is consistent with feminist political critique as well as with the claim that women and members of other oppressed groups may have easier access (in virtue of their social status and concomitant experience) to more reliable patterns of inference on certain subject matters. Of the latter two claims I am certain. By accepting the unfortunate "liberalism" label I become target to a further objection:

> The argument of Section 1 recapitulates the form of fallacy committed by Descartes when he insisted on a sharp distinction and consequently on an ontological separation between mind and body. This preoccupation with separations, a typically masculinist and supremacist approach to problems, is in evidence here in the argument's distinction between logical and sociological questions. And it constitutes the basic problematic of Western philosophy, posing an insuperable philosophical barrier to the possibility of knowledge. The perspective and method of the author of Section 1 is so shaped by the standpoint of the hegemonic that it produces only distortions; its products are highly infected and cannot be considered reliable. Someone hostile to the patriarchal attitude—as alternativists ought to be—will not be persuaded by the

> argument. The methodology of separations excludes from the outset feeling, emotion and intuition from the sphere of the rational.[27]

Those who accept this criticism share a particular estimate of the source of the standard metaphysical categories of philosophy, which issue in what some consider insuperable "dualities," in the patriarchal preoccupation with separation and control. Presumably a less preoccupied perspective will not display this array of categories, but will instead present a more holistic or "organic" conception of the world and the categories of Western philosophy. And feminists, while they may agree with the diagnosis given in the objection, disagree about the correctives to Western categories. Some authors have suggested that the dialectical pattern of historical materialism is itself a clear alternative to traditional paradigms.[28] In contrast, I suggest that historical materialism, as a proposal conforming to **Schema *G***, is consistent with traditional epistemology because, as I have argued, any proposal that explains the propagation of intersubjective belief *via* causal processes is consistent with any answer whatever to the logical question.[29]

But the objection we are currently considering to traditional foundations can easily be met. I will, for the sake of argument, grant the point that the perspective defended in Section 1 is shaped by attitudes that favor the interests of those who already have dominion over the economic and political resources of society. As I have already argued, however, this is not enough to indict the *pattern* of argument purporting to establish that answers to the generation question have no bearing on the logical question. Whatever may be the case concerning my motivational structure, I may in addition be employing (whether consciously or not) patterns of inference that are nonetheless reliable. The question of reliability cannot be settled by investigation of the rectitude or pathology of my psychological dispositions. They can be settled only by logical investigations of the relationship of the content of my premises and conclusions to the facts of the actual world. No part of the objection is directed against this part of the argument. The attack is directed squarely at my psychology—which I need not even trouble to defend.

Mariam Thalos

State University of New York
at Buffalo

NOTES

1. See Goldman (1985); Kornblith (1985b).
2. Quine (1969), 75.
3. Nelson (1990) concurs that feminist epistemology is best understood in relation to critiques associated with Quine.
4. Quine (1953), 41.
5. Causal theories like Dretske (1981) are engaged no less in discussion of the production of true beliefs than are Bayesian theories.
6. This point has been made by a number of writers, among them Quine (1974), Friedman (1979) and Goldman (1979).
7. Nisbett and Ross (1988) lists a number of what they call "heuristics." These heuristics, or inference strategies, are described in logical, rather than psychological, terms. In some passages Nisbett and Ross suggest that these heuristics offer an explanation of certain human judgments. In other passages, however, they suggest that human understanding of the rapid flow of social events "may depend less on these inference patterns" (p. 200) than on a large store of general background "theory" (presumably acquired early on in development). Both these suggestions are compatible with the view I advance here if we think of heuristics as inference patterns, implementable by psychological processes, and background "theory" as instilled by some psychophysiological process. The heuristic is a logical entity, implementable by a process; the "theory" is put into place by the psychophysiological process.
8. **Schema *G*** is thus compatible with Harding's (1990) sympathy with the "strong programme." The social causes of truthful beliefs are as much subject to investigation as those that issue in error-ridden corpora of beliefs.
9. Quine (1970) and his followers suggest there is a further gap: a gap between one's theory and the totality of possible observations. This gap goes by the name *underdetermination*. See Wilson (1980) for a contrary opinion.
10. There are, for example, concerns about whether we must know something about the error mechanisms at play in data-gathering. The independence for which I argue leaves issues of error, which I bracket here, completely untouched.
11. Notice that this makes historical materialism, as a candidate proposal conforming to **Schema *G***, compatible with traditional epistemological foundations.
12. And indeed those who issue this challenge frame the logical question completely differently from the way I have described here; see especially Kornblith (1985b) and Goldman (1985).
13. Friedman (1979).
14. *Pace* Kornblith (1985a), p. 12.
15. Forster and Sober (1994) show this may not be necessary to the degree Friedman requires.
16. Friedman himself goes on to argue that, for all we know, the theories produced by the inductive methods we endorse might actually undermine those methods. There is no guarantee that the theories of the world we will produce, if true, will support the reliability of the methods we have used to produce them.
17. Goldman (1985).
18. Kornbltih (1985b).

19. Kornblith's insistence on drawing attention to causal mechanisms controlling a subject's belief adoption affords us an occasion to offer a slightly modified (if somewhat more controversial) argument in favor of the traditional framework. To rate an inference pattern is to return an evaluation of its reliability. Now reliability, like validity, is a semantic relation: it involves the relation between the content of a linguistic medium and the world. Evaluation of a mechanism or process, on the other hand, is a different matter. A complete description of a causal process connecting two items of belief can be rendered on purely syntactic grounds (this is the controversial component of this argument). Since syntax and semantics are independent dimensions of an inference, the compatibility of proposals on the logical question with anything conforming to **Schema *G*** is explained. If evaluation of process is to be ultimately tied to matters of truth production, it must ultimately be given semantic dimensions. That dimension is precisely what the logical framework supplies.

20. See Jaggar (1983) among many.

21. Cf. Friedman (1979), p. 156.

22. Mills (1988), p. 246.

23. Harding (1991), see esp. p. 123; cf. Harding (1993).

24. Harding (1993).

25. See especially Jaggar (1983), pp. 385 ff.

26. Imagine the retort that traditional epistemology is guilty of this same sin. The argument I have been making—that the traditional framework fosters the position that there are patterns of inference (perhaps typically more accessible to women and other disadvantaged populations) that are better than others with regard to truth production—is evidence otherwise.

27. This objection is inspired by considerations raised in Flax (1983), Harding (1982), Hartsock (1983), Jaggar (1983, 1989) and McMillan (1982).

28. Jaggar (1983), 358.

29. Hekman (1990), 40, gives independent reasons for the same conclusion.

REFERENCES

Dretske, F. 1981, *Knowledge and the Flow of Information.* Oxford, Blackwell.

Flax, J. 1983, "Political Philosophy and the Patriarchal Unconscious: A Psychoanalytic Perspective on Epistemology and Metaphysics," in Sandra Harding and Merril Hintikka, (ed.), *Discovering Reality: Feminist Perspectives on Epistemology, Metaphysics, Methodology and the Philosophy of Science*, Dordrecht: Reidel.

Forster, M. and Sober, E. 1994, "How to Tell when Simpler, More Unified, or Less *Ad Hoc* Theories will Provide More Accurate Predictions," *British Journal for the Philosophy of Science*, forthcoming.

Friedman, M. 1979, "Truth and Confirmation," *Journal of Philosophy*, 76, 361–382. Reprinted in Kornblith (ed.), *Naturalizing Epistemology*, Cambridge, MA: M.I.T. Press, 1985, 147–68.

Gilbert, S. 1986, "Introduction: A Tarantella of Theory," in Helene Cixous and Catherine Clement, *The Newly Born Woman*, Minneapolis, MN: University of Minnesota Press.

Goldman, A. 1979, "What is Justified Belief?" in Pappas, G. (ed.) *Justification and Knowledge*, Dordrecht: Reidel, 1–23.

____ 1985, "Epistemics: The Regulative Theory of Cognition," in Kornblith (ed.), *Naturalizing Epistemology*, Cambridge, MA: M.I.T. Press, 217–230.

Harding, S. 1982, "Is Gender a Variable in Conceptions of Rationality? A Survey of the Issues," *Dialectica*, 36, 2–3.

____ 1991, *Whose Science? Whose Knowledge?* Ithaca, NY: Cornell University Press.

____ 1993, "Rethinking Standpoint Epistemology," *Feminist Epistemologies*, L. Alcoff and E. Potter, (eds.), New York: Routledge, 49–82.

Hartsock, N. 1983, "The Feminist Standpoint: Developing the Ground for a Specifically Feminist Historical Materialism," in Sandra Harding and Merril Hintikka, (eds.), *Discovering Reality: Feminist Perspectives on Epistemology, Metaphysics, Methodology and the Philosophy of Science*, Dordrecht: Reidel, 283–310.

Hekman, S. 1990, *Gender and Knowledge*, Boston, MA: Northeastern University Press.

Jaggar, A., 1983, *Feminist Politics and Human Nature*, Savage, MD: Rowman and Allanheld.

____ 1989, "Love and Knowledge: Emotion in Feminist Epistemology," in Ann Garry and Marilyn Pearsall, (eds.), *Women, Knowledge and Reality*, Boston, MA: Unwin Hyman, 129–56.

Kornblith, H. 1985a, "Introduction: What is Naturalistic Epistemology," in Kornblith, (ed.), *Naturalizing Epistemology*, Cambridge, MA: M.I.T. Press, 1–13.

____ 1985b, "Beyond Foundationalism and the Coherence Theory," in Kornblith, (ed.), *Naturalizing Epistemology*, Cambridge, MA: M.I.T. Press, 115–27.

McMillan, C. 1982, *Women, Reason and Nature*. Oxford: Basil Blackwell.

Mills, C., 1988, "Alternative epistemologies," *Social Theory and Practice*, 14, 237–63.

Nelson, L. H.,1990, *Who Knows*. Philadelphia: Temple University Press.

Nisbett, R. and Ross, L. 1988, "Judgmental Heuristics and Knowledge Structures," in Kornblith, (ed.), *Naturalizing Epistemology*, Cambridge, MA: M.I.T. Press, 1985, 189–216.

Quine, W. V. O. 1953, "Two Dogmas of Empiricism," *From a Logical Point of View*, Cambridge, MA: Harvard University Press, 20–46.

____ 1974, *The Roots of Reference*, La Salle, IL: Open Court.

____ 1970, "On the Reasons for the Indeterminacy of Translation," *Journal of Philosophy*, 67, 178–83.

____ 1969, "Epistemology Naturalized," in *Ontological Relativity and Other Essays*, New York: Columbia University Press, 69–90.

Wilson, M. 1980, "The Observational Uniqueness of Some Theories," *Journal of Philosophy*, 77, 208–33.