The best feminist objections to logic (and, thus, perhaps to science)

I'll first summarize some crucial distinctions and purposes at work in logic, and distinguish logic from what logic is allegedly about, namely arguments. Then that summary will be invoked as support for what I take to be the most formidable objections to logic. These objections are feminist in the sense that they have been articulated by women and feminist writers. But they could work a revolution in logical theory which will not be limited to feminist issues, a revolution which makes all of logic better, more grounded and more humble. This would be comparable to some recent results in science (primate studies provide conspicuous examples) which are a result of feminist thinking, revolutionary effects which result not in feminist science so much as just better science, less myopic than what had been practiced by men. There might be a concern given these remarks that I am trying to take this attack away from the feminists, deny that it is their turf or that it will remain their turf. I do, in fact see these attacks as feminist contributions--feminists get credit for them because they are good attacks--but I think that their contribution does not mean they get to keep the turf. Still, I think it undeniable that what is summarized here is a major contribution, not just to logic and science but to philosophy. And it is a feminist contribution.

A distinction, and an overall goal in logic. Logic is abstract, and it abstracts from particular subject matters, contents, things in the world. It does so in order to provide accounts which are independent of contexts, speakers, purposes, and particular concerns or biases. Its examples involve words which refer to the world, but only so that it can demonstrate that its results apply to all things in the world equally, regardless of context. One of its fundamental claims is that its appraisals are a matter of form rather than content. An elementary example is often used to teach this distinction, sometimes with the note that the word men is being used to translate the Greek anthropoi, the gender-neutral term for human beings:

All men are mortal.
Socrates is a man.
Therefore, Socrates is mortal.

–but wait, we are not done yet. Boil away the references to things and replace them with placeholders in a consistent fashion, one placeholder used wherever a particular reference goes. Let us use m for men, r for mortal, S for Socrates, and write the form or schema of the argument above:

All m are r
S is m
Therefore, S is r.

–and we are still not done. The next step is to check to see what other referring expressions can be used in the schema. There are lots, not all of them making sense, but of those which make sense and in which the first two lines are true, the truth of the last line with the therefore is guaranteed or assured. When I teach this I require each student to supply a referring expression for m, another for r, another for S, such that the first two lines are true. We put them on the board and make converts on the spot. m, orcas; r, mammals; S, Shamu. Oil companies; greedy; Chevron. Sounds, vibrations, music. Colors, between 400 nm and 700 nm, green. This is not a result of any facts about the world but is a result of the form, which provides that guarantee regardless of context. We can expand into other forms, and check to see, as Aristotle does in the Prior Analytics, which forms do provide these guarantees. Aristotle eliminated singular references in favor of categorical references, so no “Socrates is this or that” are allowed. He was interested in combinations of statements of the form, All m are r, All m are not r, Some m are r, Some m are not r. (Medieval fundamentalist Aristotelians gave these forms of statements names, respectively, of A, E, I, and O, and names to the combinations of three statements keyed to the vowels. “Barbara” is the series of all A statements, which goes “All m are r; all s are m; therefore all S are r.”) We can check among the forms to see which carry the guarantee. For example, we could examine the following series of statement forms: Some m are r, All s are m, Therefore all S are r, and find through a counterexample that it is not a form which gives the guarantee.

All these moves are motivated by the goal of avoiding biases and power relations which might interfere with recognition of the essential characteristics of the form, which alone determines whether the argument is valid. Combine the validity of the argument’s form with the truth value of the premises, and you have all that is allowed from the surrounding world in assessing the argument. Everything else about the speakers and the situation and its history and the stakes and the bearing of this argument on other arguments and other issues—all that is feared and barred.

There's more to the story. A feminist history of logic, which keeps its eye on those matters relevant to problems in the story, is Andrea Nye's Words of Power: A Feminist Reading of the History of Logic (Routledge: 1990). The piece of the story above is enough, though, to launch a series of objections. I fear these rely on support which will be more obviously true to feminists, and so there’s some preaching-to-the-choir in this. But more support can be spelled out which will have, or at least should have, bite even against fundamentalist logicians.

**Objections:** The requirement that we do appraisals of arguments by concentrating on their forms and looking for forms which offer guarantees—that requirement is motivated by a desire that we avoid the clutter resulting from wading into particular issues, particular subject matters, particular speakers, particular stakes, particular histories and goals. In fact, logical appraisals do a good job of separating appraisers from those particular contexts and offering in their stead a kind of crystalline purity which is perfectly impersonal.

Even if we grant that logic can provide these appraisals in some appropriate contexts, however, there are serious limitations to logic. Briefly,
logic cannot provide criteria for what counts as a good argument. Because the formal model is based on binary judgments (valid, invalid, sound, unsound) the model is incapable of justifying us in saying whether an argument is relevant, trivial, crucial, or better or worse than any other formally correct argument. Further, that logical model is not able to tell arguments from non-arguments (viz. the mortality of Socrates). Except in philosophy and highly mathematically disciplines, it is very seldom that anything remotely like formally valid arguments are offered in the ordinary give and take of scholarly debate. Even when they are offered, the evaluation of those arguments is conspicuously only very rarely an effort to apply the formal theory to see if the arguments measure up. Further, the formal model only begins to do its work, only can begin to be applied, after the work of reading the argument and translating it into the proper form is over. But logic cannot tell us whether that translation is right. In other words, the formal model cannot help with any judgments as to whether the argument has been fairly represented in the form to which the model is brought to bear.

But there are more objections. The requirement that we regard appraisal of arguments as a formal matter is in fact a requirement that we dissociate ourselves from ourselves. That is, claiming appraisal is formal is in effect a claim that the following things about ourselves are irrelevant at best and are likely to impede us: we have bodies; we have sexualities; we have histories, loves and hates, desires, a record on the issue at hand of successes or failures or no record on the issue; we have feelings, sympathies, children, relationships, memories, hopes. Insisting that appraisal is formal appraisal is in fact an expression of the view that all those things about ourselves are hindrances, but that is a view which has not been argued for.

That is, the endorsement of formal appraisal rests on a requirement of various dissociations which have not been argued. In logic, that’s called begging the question. If in fact it is possible that in some issues things off that list might be a help to us in appraising arguments, then the view is defective. Further, the view at issue often turns appraisal into something like a game, a sterile and self-contained exercise in which it is easy to forget the stakes involved and easy to dissociate the evaluative work from those parts of our lives which matter. A last critique comes out of Jungian writers talking about the archetype of the shadow and the logic of extremism. Extremism, somewhat parallel to Hegel’s account of the processes driving history, generates its own oppositions and pathologies. That goes as follows: In extreme cases, fundamental logicism can put its devotees at the mercy of the denied shadow side of logic. That is, the dissociation required when we insist on formal logical appraisals becomes a kind of madness, an excess of rationalism which works to the exclusion of understanding other aspects of our own lives, such as relationships and emotions. Even in less extreme cases the evaluative work leaves us less able to cope with issues regarding those things we have excluded from our attention. When, for example, feelings get past the barriers we have put up, we who have been dedicated to formal appraisals find ourselves overwhelmed and incompetent, and inclined to jump to endorse every feeling, every relationship, every blaming, which becomes prominent in our consciousness. More broadly than this objection, the point is made that as a contingent matter, these excluded areas (notoriously feelings and relationships) are also the areas men often hand over to women as being of less worth, perhaps diminishing their own abilities in that process.

Qualms, qualifications, danger of exaggerations: Some writers have exaggerated the position justified by these objections. Sandra Harding, for instance, has claimed that these investigations support a view that “all knowledge is local knowledge.” It may be that some deconstructionists and others have decided on these bases that not just logic but arguments in general cannot be trusted. Arguments on this view are only expressions of ideology and are ineffective at helping us make progress. Arguments on this view get marginalized while speculations, especially imaginative and literary suppositions and lines of thought characterized by stream of consciousness writing, including puns and etymologies, take their places. These exaggerations are apparently very attractive to many thinkers because the results allow for more diversity of methods in addressing issues and act as a prophylactic against negative judgments. The exaggerations also help to maintain a boundary between the sexist and sterile sciences, and the humanities where life is still allowed its juice.

I’ve called these views exaggerations. The issue is whether that’s right. In general, the crux of this critique depends on thinking through the relevance and implications of the claim that there are issues here. Is it in fact the case that all knowledge is local knowledge? Are arguments only expressions of ideology? Are they ineffective? We could also ask about the goals of those who have these views, whether protection against negative judgements, the value of speculative diversity, the separations of methods in science from those in humanities, and so on, are valuable, and if so how so?

Harding’s claim is easiest to take on, and the refutation of it is broadly applicable to the others. (I’ll still substitute arm-waving for honest toil regarding the others.) In response to the claim that all knowledge is local knowledge, Socrates would ask, In what location are you standing when you say this? That is, the claim is self-refuting if it is true, since it clearly is not limited to any particular issues or cultures but instead is about all. Further, if the claim were true, it would have to have been established by arguments. This is also relevant to the claims that arguments are only expressions of ideology or are expressions of subjective world-views, since in the face of those claims we can raise the question of whether the claims are true and on what arguments those claims rest. The question about whether arguments can result in progress is more interesting, but it too fails as soon as one asks about whether it refers to itself. If the argument stands, then that is a kind of progress, and if it fails then establishing that too, which involves arguments, is a kind of progress. These arguments against Harding’s claims and allied claims are a little slimy, it seems to me—there’s something like logic-chopping involved, a gaming aspect. I think there are better alternatives, but those require a lot of work on particular examples and the issues which come up in connection with those examples, articulating all the relevant arguments and objections, including prying open the issues and laying out the hidden springs and levers and trolls under the bridges. The only poor excuse I can make, an excuse for the logic-chopping which excuse is itself an instance of the fallacy tu quoque, is if we reflect that Harding has become defined by her opponents.