Philosophy $2^2 3^3$: Intuitions and Philosophy — Hamilton College
Fall 2011 — Russell Marcus

Class 12 - Against Intuitions
Stich and Nisbett, "Justification and the Psychology of Human Reasoning"

I. The Positive and Negative Arguments for Reflective Equilibrium

We have examined two kinds of arguments for the legitimacy of the method of seeking reflective equilibrium (SRE): a negative argument and a positive one.
The negative argument is that we lack an ability to account for knowledge of fundamental principles.
The negative argument is clearly seen in the linguistics case: we have no way of directly apprehending the structure of UG.
Even if we were given absolute truths, we could not know that they were absolute truths.
Our knowledge of any first truths presupposes a wider range of knowledge, as Sellars argued.

The positive argument, from Goodman, was that SRE underlies even our most sure beliefs, those of deductive inference.
Our justification of the general principles derives from our belief in the particular statements they entail or imply, rather than from any immediate apprehension of those principles.
Once we accept that neither our observations and intuitions about specific cases nor our apprehension of general principles are infallible, we have no choice but to pick (perhaps arbitrarily) some starting points and work toward a coherent theory.

The net result of the positive and negative arguments is that it seems as if we have no choice whether to use the method of reflective equilibrium.

> The suggestion left tacit is that the alternative to the reflective equilibrium test is skepticism (Stich and Nisbett, 198).

According to SRE, our intuitions regarding inferential practices, ethical judgments, and grammaticality, as well as any claim we might make to knowing general principles of science, ethics and language, are all data, to be assimilated in the most coherent way possible.
Once we have achieved coherence, we have a system of justified beliefs.
We have solved the eternal problem of justification, and avoided skepticism.
Goodman's observations about SRE lead naturally to a solution of the problem of induction.

> Hume asked what justification we have for believing that bread will continue to nourish us. The answer is that we have inferred this belief from true premises *via* valid inductive rules. And if Hume were to ask what justification we have for the rules, the reply would be that they are in reflective equilibrium with our inductive practice (Stich and Nisbett, 191).

SRE is not magic; instructions concerning how to reach reflective equilibrium are not immediately forthcoming.

> Goodman's counsel is that we resort to the "delicate" process of making mutual adjustments between rules and accepted inferences, though he gives us no guidance on how to resolve the competing claims of an irresistible inference and an immovable rule (ibid).

But, as we saw, the development of precise rules of inference is a broad topic, for the philosophy of science, generally.
There are various guiding virtues that we seek to optimize, the immanent virtues of theory construction.
Goodman's goal was not really to specify the whole process.
We can work out the details later.
The problem of how we justify our beliefs has been transferred from the foundationalist framework, in which we worry about skepticism and realism, to the framework of SRE, in which we merely have to figure out the methodology of good science.

II. Fallacious Inferences and Reflective Equilibrium

Stich and Nisbett are not convinced of the virtues of SRE.
They argue that people can be in reflective equilibrium while holding false beliefs.

> What we propose to show is that *pace* Goodman, being in reflective equilibrium with inductive practice is neither necessary nor sufficient for a rule of inductive inference to be justified... Numerous examples of patently invalid rules...pass the test for many subjects (192).

SRE is supposed to provide a method of justifying beliefs, of providing security, if not certainty, for our inferential practices.
If Stich and Nisbett are correct that reflective equilibrium is compatible with false beliefs, then it is no good as a method of justification.

Stich and Nisbett provide three examples:

> i. The Gambler's Fallacy
> ii. Regression Errors
> iii. Erroneous Analyses of Covariation

For i, they invoke both the beliefs of ordinary folk and a nineteenth-century logic textbook, written by Henry Coppée.
Coppée, like many of us, have intuitions which lead us to hold the gambler's fallacy, and to commit related errant inferences.

> The existence of large numbers of subjects like Coppée is something of an embarrassment to Goodman. The Gambler's fallacy rule is in reflective equilibrium with actual inductive practice for these subjects. So on Goodman's account of justification, both the gambler's fallacy and the inferences made in accord with it are justified for these subjects (193).

For ii, Stich and Nisbett show that people fail to understand the nature of regression toward the mean.
For iii, they show that people make erroneous statistical inferences regarding covariance.

> Subjects in these experiments are prepared to endorse the fallacious rule they appear to be using, *viz*.: If the presence of *A*...is often followed by the presence of *B* then the chance of *B* occurring is greater when *A* has not occurred (195).

III. Refining Reflective Equilibrium

As we have seen, the data on people's misuse of data, and what is widely called irrationality, is convincing.
Still, Stich and Nisbett's claim is stronger than just that people have poor intuitions about statistical inference.
They are claiming that such intuitions align with their best theories of inductive inference, that they are in reflective equilibrium regarding these inferences.

> Subjects frequently and systematically invoke inference patterns ranging from the merely invalid to the bizarre. And, though the evidence is less substantial on this point, there is every reason to think that many of these patterns are in reflective equilibrium (195).

In fact, it is difficult to see what evidence there is for the claim that such subjects are in reflective equilibrium.
Indeed, we have not even seen any specific criteria for judging whether such subjects are in reflective equilibrium.

Stich and Nisbett distinguish between stable and unstable reflective equilibrium.
Subjects who make the faulty inferences like i-iii, they propose, could be judged to be in an unstable reflective equilibrium.
But, they could be moved to a stable reflective equilibrium if they were presented further data or a general theory which would move them to give up their current erroneous beliefs.
In fact, this is precisely what we would do with such subjects if we were, say, their teachers, or just people who cared about them.
(One aspect of the normativity of epistemology is that we are concerned to correct faulty inferences, unless, like advertisers, we want to take advantage of those who make them.)

At first glance, the distinction between stable and unstable reflective equilibrium looks like a friendly amendment to Goodman's account.
For, the Goodmanian could accept that people actually make invalid inductive inferences, and resist claiming that such inferences reflect a stable reflective equilibrium.
If such subjects were in a stable reflective equilibrium, then Goodman would be forced to say that their poor inductive inferences are justified.
That claim and the digging-in response that Stich and Nisbett consider (197-8) are unacceptable.
Digging-in one's heels and claiming that the unacceptable inferences are justified for those who make them leads directly to a repugnant epistemic relativism.
It would mean saying that, say, while the Gambler's fallacy is unjustified for me, it is justified for those who make it.
We know that the inferences i-iii are unacceptable.
The challenge is to determine our best account of that unacceptability.
Goodman could change his account to the claim that inferences are justified (only) if they are in stable reflective equilibrium.
Unfortunately for Goodman, the distinction between stable and unstable reflective equilibrium, and the subsequent shift of the definition of justification, is a trap.
Stich and Nisbett argue that subjects can be moved to a stable reflective equilibrium based on even worse inductive inferences than the ones they hold.
We can convince people to give up better rules for worse ones, to, say, adopt the gambler's fallacy.

> With suitable argument subjects can often be convinced of an invalid rule just as they can be convinced of a valid one. What is more, we know of no reason to think that valid rules are easier to teach than plausible invalid ones. Indeed, because of the counter-intuitive nature of some inductive rules, regression principles, for example, there is good reason to suppose that some invalid rules would be substantially easier to teach, and more stable once learned (197).

The underlying problem with SRE as a method of justification is that we have no reason to believe that stability tracks truth.
In fact, the reverse may be the case.

> Indeed, because of the counter-intuitive nature of some inductive rules, regression principles, for example, there is good reason to suppose that some invalid rules would be substantially *easier* to teach, and more stable once learned (197)

SRE is a coherentist epistemology: we seek a coherent theory in reflective equilibrium.
Our old epistemological paradox has reared its head.

1. Beliefs must be justified either foundationally or coherently.
2. No beliefs can be justified foundationally.
3. No beliefs can be justified coherently (via SRE).
4. Some of our beliefs are justified.

IV. Epistemic Authority

To resolve a paradox, we have to give up one of the constituent claims.
Let's keep 1 and 2.
We could deny 4, and accept skepticism, but that seems rash.
Another option would be to find a different coherentist strategy, holding on to the denial of 3, and adjusting the SRE strategy.
That's the point of the second part of the Stich and Nisbett article.
They first wonder whether one could just do what we want to do: ignore the inductive inferences of the folk, and rely only on the reflective equilibrium of authorities.

> There are people in our subject's society who are recognized as *authorities* on one or another sort of inference. And if our subject wanted to appeal to a higher court than his own reflective equilibrium, he could do so. He need only seek out the experts and ask them (198).

Let's call this method seeking expert reflective equilibrium (SERE).

One interesting question about SERE is whether it is really the method Goodman had intended.
Goodman's discussion of reflective equilibrium is sketchy, a side note in the piece about confirmation and the new riddle of induction.
Stich and Nisbett are skeptical that Goodman intended SERE over SRE.
Though I think they are too dismissive, I will not pursue this question, here.

More importantly, SERE only pushes the question of justification back one step.
Stich and Nisbett pursue this criticism by describing a cognitive rebel, and showing that his denial of an

inductive inference is incoherent.
That's not a bad way to describe the problem.
It allows Stich and Nisbett the possibility of amending the SERE account:

> Rule r is justified [iff] it accords with the reflective inferential practice of the (person or group) of people I (the speaker) think appropriate (201).

Stich and Nisbett are holding onto SERE, and refining the way one determines the experts.
But, this does not solve the fundamental flaw with SERE.
We have to presuppose a standard for inductive inference in order to determine the best practitioners of inductive inference.
Presumably, the experts are those who best understand or practice those standards.

V. A Return to Skepticism?

The Stich and Nisbett article was written almost thirty years ago.
In more recent work, Stich realized that SERE begs the question of how to pick out the experts.
In the paper in the DePaul and Ramsey collection, he writes,

> Unless experts are picked out in a question-begging way (e.g. those people whose inferential practices are in fact justified), it seems entirely possible for the expert community, under the influence of ideology, recreational chemistry, or evil demons, to end up endorsing some quite nutty set of rules (Stich, "Reflective Equilibrium, Analytic Epistemology and the Problem of Cognitive Diversity," 102).

Stich currently thinks the whole SRE project is faulty.
In specific, he thinks that the problem of cognitive diversity undermines all such projects of justifying inferences.
If intuitions are really as unreliable as Stich and Nisbett say, then the whole method is lost.
Unless we can somehow save reflective equilibrium, it looks as if we are back to the epistemic drawing board.
That is the question that imbues the rest of the course.

Philosophical uses of SRE invoke intuitive data and abstract theories.
We are going to examine some recent studies about the robustness of intuitive data.
Stich and Nisbett and Tversky and Kahneman look at general inferential infelicities.
We are going to look at specifically philosophical intuitions and their uses in supporting philosophical theories.
Our question is whether there is something seriously wrong with philosophy as it is practiced.