

INSTITUTIONALIZING INDIRECTION: Science at the Crossroads of Scholarship and Politics

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■ SOME GENEALOGY

In these times of not only higher, but escalating superstition, a nebulous group of 'postmodernists' and 'post-structuralists' are imagined as threatening the sciences and science studies alike. In that context, it amuses and encourages me to recall that as an undergraduate, it was in a course taught by a theoretical physicist that I first encountered the work of Michel Foucault. It was from a scientist, then, that I first learned that the tools of thought being honed in France in the wake of (but hardly *post-*) structuralism might be helpful for re-thinking how the sciences fit in The Order of Things. I began learning from this physicist how these concepts had been machined to dissect scientific logic, to map the successful failures of metaphysics, to trace the microflows of power and desire through bodies and other social spaces, and to play along with a playful language. This scientist instilled in me the belief that philosophical, historical, and cultural inquiry into words and things would have to become an essential part of scientific practice and theory if the sciences were ever to fulfill their liberatory promise.

Granted, Herbert J. Bernstein was somewhat outside the mould of stereotypical 'physicists'. This would explain why I am now—seventeen years, one postgraduate degree, and several hundred books of theory later—working with him again in an ongoing institutional experiment called the Institute for Science and Interdisciplinary Studies (ISIS).¹ But exceptionalism is not the issue here; rather, its opposite. How do you establish an institutional space where, day after normal day, a number of people have the necessary different

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resources to engage in both intellectual and political work around issues involving science? How do you continue to fund it? How do you manage such an organization? What collaborations are possible, and what tensions arise?

Since I need some kind of further narrative for how and why I got to this position, the following will serve as well as most: I got tired, I got bored, and I got sick of (among other things) the nauseating recurrence of articles and exchanges in the science studies literature that demanded a political positioning for 'our' intellectual work within science studies, and/or argued that the various 'posts' (-modernism, -structuralism, -essentialism, -positivism, etc.) were at best apolitical and amoral, and more likely worked against the possibility of doing intellectual/political work that was 'progressive' and 'ethical'. The intellectual analyses offered in many of these pieces were clearly in need of further development, particularly in their tendentious and persistent misreadings of the 'deconstructionists' (including, most egregiously, the idiotic argument that 'deconstructionists' could not claim to be 'misread' since they proclaimed the 'death of the author'). I might even have scored a few publications and fleshed out my C.V. by patiently trying to address these questions.

But I could not drag myself into what had become a fruitless, unappealing, polarized set of oppositions. Pursuing, instead, the questions of affirmation and experimentation that I found in these bodies of literature habitually wronged as nihilist and definitive, I thought it better to just do the damn work. I chose to help build and enact a non-profit organization dedicated to both science in the classical sense *and* its post-classical critique, to democratic politics *and* intellectual inquiry, rather than trying to establish in theory whether it could or should be done.

■ SOME DAYS

What is that work, then? Let me describe a typical, i.e. fictional, day. There is a staff meeting, which starts late, and each of us gives a one-minute 'check-in' about what is going on in our personal lives. Some days I find this less distressingly organicist than other days, and easier to believe with everyone else that this is an essential part of enacting a 'non-hierarchical', 'caring' organizational style. As the five of us provide 'project updates', the heterogeneity of the place

becomes clear. We learn what is happening in the Military Nuclear and Toxic Waste Project, and review developments in the area of Multiple Chemical Sensitivities (MCS). (I discuss these in more detail below.) There is a report on our involvement in a coalition of farmers, universities, and other non-profit organizations working in sustainable agriculture: the Dairy Action Group cannot reconcile its interests with the larger project; the Tomato Group is totally together; we do not know how to involve more agricultural scientists from the University of Massachusetts, or what we want that involvement to be; there is an upcoming national conference sponsored by the Kellogg Foundation, which funds the local project and our evaluatory/organizing role in it. Herb introduces the new physics student who is going to try building, and patenting, a new device stemming from his work in quantum interferometry, and talks about last week's meeting of the Scientist's Dialogue Group, modelled on David Bohm's efforts to foster critical self-reflection among scientists.

Then there is the business and administrative stuff, which mostly centres on fundraising: the number of individual donors is up, but we need more, and more major ones. Some grant deadlines are approaching, including one for one of those few foundations which gives 'general support', which we need even more than project-specific funding. We have to decide whether to commit more money (which we do not really have anyway) to the Secoya Survival Project, intended to help indigenous people in Ecuador secure clean food and water (not to mention economic and cultural survival) in the midst of expanding oil production and exploration. That discussion goes on and on.

The lack of a unifying, non-contradictory logic to all these heterogenous projects reminds me of the glib idea we once had for an ISIS T-shirt: 'There's no such thing as Reality ...', the front would read, one (imprecise) way of summing up Herb's work in quantum physics; on the back: '... and we're cleaning up Westover Air Force Base'. At ISIS, we depend a lot on this simple conjunction, 'and', to hold together contradictions rather than try to resolve them. It is a big kludge job: at once clever and clutzy, elegant and ungainly—and it works pretty well.

At lunch I might lead a seminar, either focused specifically on one of my current writing projects (on biotechnology and genetics,

on quantum mechanics), or something more general, like what the difference between 'value-free' and 'value-aware' science might be, or if these terms make any sense at all. Afterwards, I will troll through some literary theory or philosophy, hauling in a few conceptual tools that might come in handy someday. Meanwhile, a former student of mine takes an interminable list of the chemical contaminant levels in 17 monitoring wells at Westover Air Force Base, and begins entering the values into our Geographic Information Systems database so that local citizens will eventually have access to all this information. Each of us relies on a not-too-reliable sense that we are both doing something worthwhile. As I do about once a month, I complain about the name 'ISIS', with all its goddess connotations, wishing we had gone with the equally pretentious but better acronymed Institute for Advanced Studies in Knowledge—IASK. But a change of name is out of the question, so I continue to live with it.

I might edit and make suggestions on the Technical Assistance Grant proposal to the Massachusetts Department of Environmental Protection for our work at Westover, but Jeff's already done an amazing job on it. Instead, I work on some 'boilerplate' text to insert into other proposals, year-end fundraising letters, and the like. The words have to be inoffensive enough to appeal to a range of scientists and others, as in our claim that ISIS is (as our brochure states) 'developing a new way of doing science that is open, self-reflexive, democratic, and socially responsible'—yet specific enough to give some of the substance involved in (again from the brochure) 'collaborative efforts involving citizens, scientists, activists, and other scholars and professionals' which 'aim both to encourage scientists to recognize the human impact of their work, and to promote the involvement of non-scientists in evaluating and guiding scientific approaches and advances'. It is not easy to write in this genre, and I soon give up and go home, across the state border and into another space altogether, where I do most of my other writing.

■ SOME Q AND A, OR: Q, AND A TITLE

Officially, my title at ISIS is Executive Director. The tensions here are multiple: I am not what, in the business world, one would call 'executive material', with its connotations of formalism, authority,

and operational savvy; a spread sheet in Microsoft Excel is still likely to set my head spinning. Moreover, to the extent that I can be said to have a 'management style', it is far from direct. One of our better attempts at naming my institutional role was a play on this official title: Executive (In)Director. It was suggestive of the more cooperative, less hierarchical organizational style that we were trying to (re)invent, where whatever authority I exerted came and went via less official channels. It suggested as well the non-direct, densely reticulated nature of the scientific/social problems that our projects tried to engage—problems which defied masterful 'direction', but might be amenable to more modest and experimental interventions. Best of all, it captured something of both my intellectual style and responsibility, as elaborated below.

Others in the organization have tried their hand at re-naming my position to better convey my actual role. Taking a cue from *Star Trek: The Next Generation*, two of our scientists of the next generation—the young hydrogeologist who runs our Military Nuclear and Toxic Waste Project, and the young biologist who ran the office and researched MCS—came up with another, still less formal title: Q. The reference here was to the character Q, whose appearance is even more episodic than that of the regulars in the series. Q is a member of The Q—an opaque single initial whose congruence with The Q as a collective is equally opaque. A representative of The Continuum, Q's trope is irreverence, impatience, impetuousness—boyishness on an intergalactic scale, played with élan and bravado that make him a 'likable' character even as he exasperates the crew. Presumably omniscient and omnipotent, his primary functions are to observe, judge, and disrupt; he is interested in the crew and its missions, even likes to put on their uniforms, but finds it hard to tolerate the pieties of 26th-century humanism. He arrives, he fires off a few good lines, he rolls his eyes, he both instigates and averts disaster, he leaves.

But while Q's questioning presence on the deck of the *Enterprise* was greeted mostly with exasperation and impatience, my analogous role in the enterprises of ISIS has been, for the most part, welcomed and cultivated. When I decided that much more of my time should be spent on writing and research, and much less spent on fundraising and executiving—i.e. that I would spend more time in The Continuum, with greater episodic gaps—there was collective support for such a redefinition. Everyone agreed that full-time writing was both

what I *should* be doing, and one of the things that an institute dedicated to re-forming the sciences *needed* as part of its undertakings. If you do not think that writing and language are fundamental to the sciences and their power, and thus requiring dedicated reflection and demanding conceptual tools (which it is not my fault that some of the best ones are made in France), then you just have not been paying attention.

Like the *Enterprise's* transporter, the arrangement does not always work: co-ordinates get mixed up, pattern coherence wavers. There are some serious, residing organizational tensions, and Engineering has yet to complete its full diagnostic. Still, it was another step toward making ISIS a kind of middle space, between the academy and the activist organization, between the worn-out and uninspiring terms of theory and practice.

It would be a fairly satisfying organizational model, then, if in the collage of heterogenous projects that I sketched above, which together compose ISIS, I did my writing/thinking projects and others did their organizing/acting projects. A separate peace among separate pieces. But we also harbour a desire for something to happen in the space between these different types of activities as well—'mutual learning', as some of our boilerplate text says somewhere, among scientists, science studiers, and 'the community'—that floating signifier that always falls with a thud into all our texts. It is that plunge from the community to 'the community' that the remainder of this text plunges into.

■ 'COMMUNITY' WRIT LARGE

ISIS is an organization that operates from the anti-foundationalist foundation that 'science is socially constructed'—an empty phrase, whose demise cannot come soon enough for me. One of the things this means is that we leave no category, concept, or method in a 'natural' state, as something obvious, beyond question, readily apparent to everyone who can see straight. And just as we question how words like 'reason' or 'science' work to silence some people or exclude some perspectives, what they signify in our culture, the hopes they evoke and the promises they represent, then we have to do the same for words like 'community'.

As an ethnographer/Q, I look at ISIS, and some theoretical/politi-

cal articulations of science studies more broadly, and see that 'the community' is the name given to that hoped-for thing in the system of knowledge/belief which will salve the wounds of science. It is a fetish object, an object of desire, the saving power for a fallen material world, the place in the thought-system where millennial hopes are located. Or maybe 'community' is the place hol(e)der that marks the absent space within the system, the thing we do not have but think, for whatever multiple obscure reasons, we want or need.

Whether it is utopian (and Eurocentric) visions of the Hollan-dization of the world through the proliferation of the Dutch science shops, or our own efforts at the local Air Force base or around MCS, my job—my responsibility, even—is to institutionalize indirection. I find the bends in straight assertions that hide their true nature as questions. I institute disjuncture, and inject multiplicity into unified beliefs: what about this, and this, and this? That entails the intellectual work of reading and writing, to ask what we mean—or rather, what is meant—by this term 'community': to look at 'community' not as an answer to plug in (add community values/input to science) but as a set of questions. How does the term 'community' function in our knowledge system? What is being promised with this term? How is a community made, and how does it work or not work? What work do we expect this term to do? What work does it do outside of our expectations? What different articulations are available or can be made available? Where do those articulations crack, show their inadequacies? When does the invocation of 'community' entail a necessary violence, or the binds and stasis (freezing most often along gender lines) of tradition?

The concept of community is indeed, as reads the title of one of the books I have scattered around and keep intending to read, 'at loose ends' (Miami Theory Collective, 1991). I would like to work through a whole slew of Enlightenment authors on the concept, not to mention all those writers mourning at/in its wake. That would be hard and worthwhile work, work that I never seem to have enough time for, and certainly not enough space for here. But it *is* part of my job description; I am expected to interrupt the work and thinking of the ISIS 'community organizers' with these kinds of questions, which keep us from making quick and easy assumptions and simplifications, force us to think and rethink what might otherwise go unquestioned.

There are at least two double-binds here. To do that work of theorizing 'community', I require an enormous amount of solitude. This tends toward homogenized assertion, a designation of identity across difference; 'community organizing', by definition, privileges locality, specificity, and difference over identity. The challenge is to work this double-bind, allowing the local to operate as an exception to theory, trying to generalize and re-formulate theory across locales—an oscillating writing of 'community' large and small.

■ 'COMMUNITY' WRIT SMALL

Scaling back my ambitions, then, let me just sketch some of the lines involving 'the community' in two ISIS projects.

In the project on Military Nuclear and Toxic Waste we have ended up, partly through chance and partly through intention, in a mediating role. Map it out, and you would find ISIS between the community of people living around Westover Air Force Base in Chicopee, Massachusetts, and the military base itself. To be more precise: ISIS would be between Valley Citizens for a Safe Environment (VCSE), the 'community group', *and* the 'community' around the base that VCSE 'represents', *and* the civilian environmental engineers at Westover, *and* their military superiors. There are other 'communities' that we find ourselves between, but that's enough for now.

This mediating role has by-and-large worked to everyone's satisfaction. From the start, we were able to make it clear to both VCSE and the military that we were not interested in their previous conflicts (involving a lawsuit over the noise of flight operations, which, thanks in large part to military ineptitude, the community won), and we were not interested in the larger questions of whether the military should or should not exist in principle; that any mention of these larger differences at a meeting with ISIS would be ruled 'out of bounds', and that we would only focus on questions of what chemicals were in the ground and groundwater on the base, whether they were going over the base property lines, and what the best configuration for base clean up operations would be. That gained us the trust of both the air base personnel and the people active in the community group. ISIS's presence in the middle of these groups improved relations and communications significantly.

The community involved around Westover never asked ISIS to be or do anything that was not already part of our provisional self-definition. Their greatest need was for good technical information and assistance in interpreting it, and that we could provide. Contractor reports on the base cleanup that VCSE had to request repeatedly or wait for indefinitely were released to us quickly, and we passed them to VCSE along with our readings of them. Jeff Green arranged for a number of geology and chemistry classes from local (Smith, Amherst, and Hampshire) colleges to conduct various studies of the groundwater and local terrain as part of class projects, an implicit challenge to the contractors' characterization and monitoring of Landfill B (one of the toxic sites on the base).

We have learned a great deal from this work. The first is that after years of the military's own studies, and after our own independent technical evaluation, we are still not sure which way the groundwater underneath Landfill B is flowing—especially not at every season of the year. What ISIS has 'advocated' has therefore been quite specific: more monitoring wells on one side of the landfill, the side nearest the base boundary; more, and better, scientific studies. The Air Force has agreed to many of our suggestions; they have ignored many others. The community would like to begin testing wells outside the base's fence, and ISIS would like to support them in that effort. But that gets expensive very quickly, and a source of money has not yet shown up on our short-range scanners.

The work of the Military Toxic and Nuclear Waste Project is demanding, ongoing, painstakingly detailed, seriously underfunded, and constantly presenting new scientific and political challenges—yet it has gone relatively smoothly, and made my job as indirector relatively easy. It has not seriously jarred our institutional identity or conceptual categories. 'The community' has never asked ISIS to 'advocate' any particular position; far from making us ineffective or irrelevant, this apparently 'neutral' position has allowed us to do excellent scientific work. From time to time we still have internal discussions about whether our 'mediating' role at Westover is the most effective stance, or whether we should take some harder, more confrontational line. And there are interesting conceptual questions lurking just underneath the surface of things: can the 'dominating knowledge' of a Geographic Information System be turned to 'liberating' ends? What can we learn from the history of Citizen's Advisory

Panels in the chemical industry, for our work with the military's Restoration Advisory Boards?

But these discussions and questions have lacked urgency or force. We continue as 'mediators' mainly because none of us can see how a harder line would be more productive, or even why we need (or if we have the personnel) to be more productive when there is already an overwhelming amount of 'neutral' technical and mediating work to be done.² 'The community' in the form of VCSE already knows how to be hard line when they have to; they do not need ISIS's help in doing so. And despite uncertainty and worries, the problem does not appear to call for extreme or immediate action. There is no alarming evidence—just now—of increased birth defects, high cancer rates, or other health problems that would turn up the volume at community meetings.

Our project on Multiple Chemical Sensitivities is an entirely different story.

■ MCS: MUDDLING WHAT COMMUNITY SIGNIFIES FOR MULTIPLE CHEMICAL SENSITIVITIES

Like our work at Westover and all other ISIS projects, our work on MCS is troped, to some greater or lesser degree, around the idea of the sciences and communities. But the context and content specific to MCS have forced us to deal more urgently with questions about the meaning of 'advocacy', the meaning of 'community', and what our organizational role(s) should be.

The ISIS project on MCS is directed by Karen Sutherland; Karen has, or may be getting over, MCS. Her story is in many ways typical, and illuminates some of the key phenomena of MCS. When she was a business manager at a heating oil company, the continuous acute exposure to diesel fumes there initiated the chain of disabling reactions known as MCS. She began reacting to more and more chemicals, from perfumes to cleaning fluids, at levels seemingly undetectable by other humans, not to mention 'objective' scientific instruments; symptoms (headaches, nausea, loss of memory, etc.) were not confined to specific organ systems. Thus MCS defies standard medical models of both dose-response relationships, and causal mechanisms specific to certain tissues and organs.

Like most people in her position, Karen found most doctors

unsympathetic, often ascribing her symptoms to some form of hysteria. Unable to work, Karen had to negotiate her way around, through, and against various medical and legal institutions and discourses, including the workers' compensation system. Years later and somewhat recovered, she recently received an award from the Western Massachusetts Council on Occupational Safety and Health for her exemplary work in getting MCS recognized by the workers' compensation system.

The problem of MCS is different than the problem of military waste, and calls for a different set of responses. Almost everyone agrees that military toxics exist and are a problem, including the military. The clinical and scientific status of MCS is much more contested, and flatly opposed by the chemical industries and most biomedical professionals. Our role as 'mediators' and 'technical assistants' has met (for the most part) with the approval of the 'community' around Westover, who are their own advocates when they need to be. The 'MCS community' would like to see ISIS more on the advocacy end of the spectrum, fighting publicly for the truth of their controversial claims. The people active around Westover can still afford some patience, and are not driven by shocking epidemiological studies, or dead fish in the local creek. People with MCS are often jobless, cut off from their former social worlds, diagnosed as deranged, and incapacitated by an array of symptoms prompted by things generally regarded as insignificant or non-existent; they want something done *now*.

But it is precisely this greater sense of urgency associated with MCS that most demands an organization geared not simply toward advocacy, but toward the double-bind of political advocacy *and* intellectual critique. It is when things get most complicated, most messy, most power-crazed, most contentious, most deadly, and *most political*, that 'being political' will not be enough. In the following sections I summarize three strategies that I have experimented with as a scholar trying not only to study MCS and write about it, but as the (in)director of an organization trying to build a project that 'serves the community' by muddling the terms of advocacy and critique.

■ (DIS)BELIEF, MULTIPLICITY, AND AMBIGUITY

In the acknowledgments to her book *Staying Well in a Toxic World: Understanding Environmental Illness, Multiple Chemical Sensitivities, Chemical Injuries, and Sick Building Syndrome*, Lynn Lawson thanks first her husband Court, who 'accepted my illness and believed that it really existed—the single most important thing that anyone can do for the chemically injured' (Lawson, 1993, p. 13).

This is a good place to start a discussion of MCS, not because it is a firm statement of what causes MCS or what we should do about it, but because of the questions that it raises. First, it asks us to make the same 'leap of faith' that her husband made, and believe that—*something*—really does exist. Second, it raises questions about the naming of that *something*: what are the differences between 'environmental illness', 'multiple chemical sensitivities', 'sick building syndrome', and being 'chemically injured'—this last one seemingly favoured by Lawson as a catch-all term? Third, in such an obviously complicated and 'multiple' territory, what does it mean to name *belief* as 'the single most important thing'?

But to be more precise: it is not simply 'belief' that Lawson is telling us should be primary, but *belief in an illness*. And that is an important distinction to have made: if 'disease' is a set of clinically, scientifically, and socially well-defined and accepted causal processes, and 'illness' is more of a phenomenological indication of individual suffering, then we will be starting in a better place. Because it should at least be clear that people are suffering, even if science and medicine have yet to come up with a widely accepted explanation of that suffering.

My belief, however, stops at the illness. I do not 'believe' in MCS as a disease category, or any of the dozens of etiological explanations or connections given to MCS. Not because I do not think such belief in particular theories of MCS is possible and in many cases warranted (it certainly is). Nor do I think that such belief is not productive in either a scientific or social sense (it certainly is that, too). I do not believe in MCS as a disease category because it is not my job to believe—it is my job to *indirect*. It is my job to ask *how* and *why* any particular articulation of theories, practices, non-human technoscientific agents, and cultural patterns gets counted (or discounted) as an 'explanation' for MCS. It is my job to scan science, culture and everything in between for the multiple, the subtle, the

allusive and the elusive. Direct, immediate belief is not the right tool for the job.

To say that I believe in non-belief would capture some of the contradictions and difficult double-binds of this position, this indirection. Those double-binds remain unresolved at an organizational level; Karen *is* a 'believer', and ISIS is posed with an organizational dilemma. Should it rely on the sociality of the 'and' which I've said characterizes the organization, supporting the contradictory work of both direct belief *and* inquiring indirection, building from and toward the fact of sheer organizational difference? Or does it define itself, organizationally, as *only* concerned with those kinds of inquiries and actions that fall outside the categories of professed faith in any certainty, whether of science or of advocacy? It is a dilemma to which we do not yet have an organizational response.

But let's go on. One of the key things that I have to dis-believe is something we write in our grant proposals and organizational literature all the time: that the way to 'reconstruct the science of MCS' (or whatever area of science is under question) is to rely on 'taking direction from the community'. Language gets squeezed and warped into imprecision in such documents: a necessary squeezing, an unavoidable imprecision, which therefore demands ceaseless vigilance. It is not untrue (tortured logics of the multiply negative) that ISIS valorizes community *involvement* in the sciences—an involvement that on occasion slips over into another term, community *direction* of science. It is just that it is also not untrue that we do not yet know what these grand terms mean in specific social enactments.

I probe the tears of such statements, trying to find the cultural logics at work: there is an undefined, unstable, and error-ridden object (the science of MCS) that can be remedied with a set of stable, defined, and truthful object/categories (the community). The logic is at once that of science, and something like that of feminist standpoint epistemology: the community embodies a privileged wisdom and self-awareness that can be given voice in a better science.

Maybe. We would have to run the experiment and see. But what do we do, in the meantime, with the multiplicity of the so-called 'MCS community'? While this community hangs together in many ways, they also disagree and differ. To take just one issue: should ISIS take its direction from those who want to define MCS as a 'environmental illness', or from those who want to trope it in terms of 'chemical

injury'? The following excerpts are taken from an electronic bulletin board to which Karen contributes, forwarding occasional exchanges to me, the detached observer, for my expert analysis. These comments should give some sense of both the differences within this community, and the different organizational positionings that would accompany those differences:

Quite simply put MCS does not describe in enough meaningful depth the actual problems of the individual. It does not lay blame on the real cause of the individual's inability to tolerate chemicals ... When Joe Doe hears that Jane has 'Multiple Chemical Sensitivities', all Joe Doe is likely to extrapolate is that poor Jane has a problem that she can't tolerate chemicals and THAT'S IT!!!! He doesn't gather from the term MCS that perhaps she had a previous chemical injury that caused her to get the affliction!

Place the causality where it belongs ... in the chemicals, not in 'us'. The chemical manufacturers, petroleum industry, pharmaceutical industry, food additive industry and food processors, etc., must LOVE the name MCS—it takes the cause and locates it in us, who are sick, instead of in the environment where it belongs ... If not 'chemically induced disorders of biological response', then Environmental Illness.

I'm not arguing that chemical injury is not a cause, or is not the majority cause. But if we're going to be scientific we shouldn't disregard all the facts on the table and define the disease based on a single-cause assumption ... What about the 20% who can't identify [a single] exposure? What about the people who got MCS after pregnancy or head trauma? What about the patients whose MCS cleared after they cleared up their *Candidiasis*? Why hypothesize a single cause for MCS and then define the disease on that hypothetical cause?

The term 'chemical injury' says nothing about the type of injury and strikes me as no more meaningful than other broad categories like physical injury and psychological injury. Another problem is that MCS is a chronic illness that results from toxic exposures. This is quite different from saying just

that you have been injured by chemicals, which could mean almost anything ...

Whenever anyone says the answer is 'community direction of science', I think what they really mean is something like 'experimenting with multiple complicated subjects with messy collective sensibilities, requiring many complex strategies including meticulously careful sociologies and muddled contradictory sciences'.

These exchanges reveal the social and rhetorical multiplicity within the 'MCS community', as well as how these community members themselves recognize the difficulties of defining the terms of debate. None the less, one can also read in these exchanges another community demand: to speak plainly, unambiguously, and straight.

Among the exchanges that Karen has forwarded to me were some commentaries on the recent film, *Safe*, which takes MCS as its subject. The film tracks the 'illness trajectory' of a disaffected white upper middle class suburban housewife, from early symptoms and exposures in her seemingly sterile home and surrounding environment, through her efforts to find a narrative, diagnosis, or cure for her mysterious condition. One electronic community member was deeply critical of the film for being too 'ambiguous' and 'artsy'. For this person, *Safe* was too hard to read clearly, too open to multiple readings—i.e. its meaning was not secure, stable, *safe*. She would have preferred something that would 'reach a wide audience to educate them on a subject most are ignorant about or who harbor severe doubt and disbelief'.

Part of me cannot argue with her position, her pain, her demand for help in the face of overwhelming opposition. And according to the doctrines of 'participatory research' (which we discuss in seminars and less formal venues at ISIS all the time), if the community says 'we need a straight story with identifiable good guys and bad guys'—a story that will command faith and credulity, dispel ignorance and enlighten the benighted masses—then our organization has a responsibility to help them find the voice in which to articulate those concerns.

I don't think so. For starters, there are other organizations which do that for people experiencing this illness, and ISIS does not need to duplicate that effort. Second, I am not sure how effective

'straight stories' are in either the short or long run; as a sociologist and historian, I know that confrontational, good guy/bad guy politics around issues of biomedical research has a mixed record. Third and maybe most important, I think it is a dereliction of intellectual and organizational responsibility to become simple vehicles of any community will.

My other responsibilities include thinking about what it means that people who are quite critical of science in other instances, undergird their thinking with key elements of a cultural logic of science. For example: ambiguity is bad, simple meanings are good. Ignorance is a matter of failed or incomplete knowledge rather than endemic or systemic. Doubt and disbelief need to be replaced by real things in which one can have total faith.

So I think it is my responsibility, as an (in)director, to document ambiguity, to show how difficult it is for anybody, scientists or filmmakers, to achieve a clean separation of fact from image, knowledge from doubt. This difficulty makes it even more imperative that our society think and work hard on MCS because this *something* represents a strange and powerful set of forces that takes up residence in a growing number of bodies. Some of the things that we are definitely going to need in our toolkits are 'severe doubt and disbelief'.

Like all scholars, community members need good questions as much as they need answers. I can help provide seven questions to ask one's workplace physician; seven to ask a psychoneuroimmunologist; seven for the public relations officer at the local chemical plant; seven for one's congressional representative; seven for the local clinical ecologist; seven for the EPA person; seven for a prospective lawyer; and seven that should be asked of me. My continuing reminder: do not have faith—harbour doubt.

That is overstated, and easier said than done, I know. It relies on its own set of beliefs, which themselves need to be questioned—something that happens to me at nearly every ISIS meeting. My ongoing role is to *work*, not resolve, the double binds of faith/doubt, knowing/questioning, advocating/critiqueing, and to remind myself and my colleagues of the artifactuality of those distinctions. Still, I have no doubt that doubt and attention to boundless complexity should always be encouraged, that the meandering queries of indirection should be institutionalized. Why do I think that?

■ RESPONSE ABILITY

Responsibility: a banal word, a notion moralistically assigned to us as a (political) duty ... Responsible: this word generally qualifies—in a prosaic, bourgeois manner—a mature, lucid conscientious man, who acts with circumspection, who takes into account all elements of a given situation, calculates and decides. The word ‘responsible’ qualifies the successful man of action. But now responsibility—my responsibility for the other, for everyone, without reciprocity—is displaced ... *My* responsibility for the Other presupposes an overturning such that it can only be marked by a change in the status of ‘me’, a change in time and perhaps in language. Responsibility, which withdraws me from my order—perhaps from all orders and from order itself—responsibility, which separates me from myself (from the ‘me’ that is mastery and power, from the free, speaking subject) and reveals the other *in place* of me, requires that I answer for absence, for passivity. It requires, that is to say, that I answer for the impossibility of being responsible—to which it has always already consigned me by holding me accountable and also discounting me altogether. (Blanchot, 1986, p. 25)

I try to keep my toolkit disordered and overflowing. My training as a historian and sociologist of science comes in handy on many occasions; I know some of the Past’s experimental outcomes, I have a sense of forces and their patterns. If that does not always give me assurances, they at least provide a source of questions for my work with ‘scientists’ and ‘community organizers’ (surely categories as displaced and overturned as ‘me’).

But I need other sources of questions, other concepts that displace and dislocate the (often handy) situated knowledges that science studies tends to provide. The fact that I tend to quote passages like the one above—passages whose meanings are far from transparent, that require a tangled response that will never be adequate—points to another kind of literature that I have gravitated towards over the last few years. Has that attraction been bad for me, for my intellectual work, for my political work? Was I supposed to

have tried harder to resist it, through a more rigorous exercise of reason and/or political commitment? As if I had some easy choice in the matter.

I would rather ask: how do I think about what this literature gives to me, and what it works for? These are different things, 'working for' and 'giving to', contradictions bound in that double bind sometimes called the gift. Does the gift bind giving and accounting, and perhaps therefore intellectuals and politics?

'One cannot be content to speak of the gift and to describe the gift without giving and without saying *one must give*', as one elaborator on Marcel Mauss's classic ethnographic text, *The Gift*, presents it. One must 'opt for the gift, for generosity, for noble expenditure ... But—because with the gift there is always a "but"—the contrary is also necessary: ... to limit the excess of the gift and of generosity, to limit them by economy, profitability, work, exchange ... It is *also* necessary to render an account, it is also necessary to give consciously and conscientiously.' (Derrida, 1993, p. 63).

Responsibility, gift: banal words. Cheap coinages with no gold standard, only a floating exchange rate. Ask what the quote above works for, what *value* it has, and I would say: it displaces my thinking about 'responsibility', it (in)directs me via its contradictions to another space. Conscientiously, then: the so-called poststructuralist literatures work by being attuned to difference, fracture. They enable response by opening up what was apparently closed and self-contained within logic or assumption. In this way they can work to both intellectual and political ends—but always more or less indirectly.

At the very least, this quote reminds me to ask: what *is* responsibility? Does *this* accepted definition of responsibility indeed respond well to *this* situation? Or *that* definition to *that* situation? Or an unknown one for an unknown, still unfolding situation? I cannot fully account for the meaning of responsibility. I cannot account for the expenditure of this scarce space in a brief article—why didn't I write more about MCS in my allotted space, tell you 'what must be done' for these people? And now I am only compounding the error.

But to ask that intellectual analysis always, and only, *work* in terms of politics, finding either its proper source or outlet there, is to ask that it be located only within a restricted economy of exchange: what is the use-value of poststructuralism? What surplus value can be extracted from literary theory? We are led not into a double-bind,

but into a zero-sum game: resources expended in the intellectual economy are not available for work elsewhere; thinking is a waste if it cannot be entered on the ledger sheets of the political program.

To think the double-bind of intellectuals and politics in terms of the gift, however, might require us to think and act with 'fear and trembling' in situations whose complexity demands both a modest acknowledgement of finitude, *and* an immodest persistence, tenacity, and excessive experimentation. Unaccountable *and* responsible—because with the gift there is always an 'and'. Like 'pure' or 'basic' research in the sciences (a bad comparison to a bad category, but sometimes you have to do it and it actually yields something), it will not always be clear what the immediate pay-off or spin-off of this kind of one-off intellectual work will be in a political context. How can I know what you, the reader, should make of that quote above, when I do not know myself how to fully account for it? It certainly does not function as a guarantee for political action, an undergirding theory for guiding practice. But I thought it made a nice present, and maybe you can use it.

While I may not look to this literature to 'found' anything, I do rely on it for experimental conceptual assemblages to add on to others already in the world. And I have worked with others to create an organizational assemblage into which these concepts can be (ill-)fitted and deployed. ISIS is a bounded space (freedom? autonomy? please ...), a House of Experiment somewhere between the academy and the public-interest science-activist organization. Far from a 'happy medium', though, it has been an uneasy middle. As an organizational response to the proliferating, mutating demands to thought and deed posed by the sciences today, ISIS has tied and tangled me even as it has set me loose, supported and isolated me, sharpened and blunted me, exceeded my expectations and left me disappointed. Everything I bargained for. Such a deal.

To start again, in other words: I have responsibilities to a community, responsibilities partially fulfilled via (in)direction. Indirect, because they are conjoined to other responsibilities: to other communities, to the value of intellectual work (i.e. critique), to an ethnographic practice, to philosophical or any other disciplinary exactitude, to literary play/work, to solitude, and even (as long as I am multiplying big fissured fantasmatic categories) to the sciences. They present different demands, give elaborately packaged presents

that confound my response-ability. Having a responsibility to all these, I have to respond to all of their questions, doubting Thomas inserting his hand into every wound that opens the flesh of community, philosophy, ethnography, MCS, ISIS, advocacy, mediation, and so on. I have to multiply, proliferate displaced (absent) I's that are not only doubly bound, but multiply bound. These I's (is ISIS I'sI's?) are obligated to ritualize what they don't know how to do. They're bound to work.

□ NOTES

1. We have also co-authored a book (Fortun and Bernstein, 1998), which describes our pursuits of both the sciences and science studies at ISIS.
2. Conventional wisdom in science studies is that nothing, especially science, is ever 'neutral'. The frequent corollary is that 'all scholarship is inherently political', and all organizations as well. While I am not without my sympathies, all these syllogisms sorely need more indirection (multiplied meanings, disruptive specificity) than I can provide here. I think the concept of 'the neutral' as developed by Maurice Blanchot could generate some interesting effects in science studies: radically rooted in *ne + uter*, 'the neutral' is that which is 'not either', and exceeds (without thereby escaping) oppositional logic altogether. So when I write that ISIS is, in some situations, 'neutral', what this means is that it is neither neutral nor 'inherently political'. See Blanchot 1993, especially pp. 72-77.

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