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# Prozac and the Post-human Politics of Cyborgs

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*Working through the lens of Donna Haraway's cyborg theory and directed at the example of Prozac, I address the dramatic rise of new technoscience in medicine and psychiatry. Haraway's cyborg theory insists on a conceptualization and a politics of technoscience that does not rely on universal "Truths" or universal "Goods" and does not attempt to return to the "pure" or the "natural." Instead, Haraway helps us mix politics, ethics, and aesthetics with science and scientific recommendations, and she helps us understand that (without recourse to universal truth or universal good) questions of legitimacy in science come down to local questions of* effect *and* inclusion*. What, in the case of my example, are the effects of Prozac? And for whom? Who is included and empowered to create legitimate psychiatric knowledge? Who is excluded and why? And, what political strategies will increase the democratic health of psychiatric science and practice?*

**KEY WORDS:** Prozac; cyborgs; science studies; Haraway; technoscience; depression; politics; post-human.

*I phoned my editor and left a message on her voice mail. I said, I know you are tired of hearing this sort of thing from authors, but something unusual is happening out here.*

Peter Kramer (1997, p. 315; emphasis added)

## THE EPIDEMIC OF PROZAC SIGNIFICATION

When Peter Kramer's *Listening to Prozac* was published in 1993, Kramer, a psychiatrist and first time book author, ran to a local bookstore to see himself in print. When he got there, he was amazed to see his book selling out as soon as a new shipment arrived. *Listening to Prozac*, as we know in retrospect, turned out to

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be a national best seller. But, at the time, Kramer was so surprised by the success of his book that he excitedly called his editor to tell her "something unusual" is going on out here (Kramer, 1997, p. 315). But what is that "something unusual" and how can it be articulated? Certainly part of that something unusual is the now well-documented recent epidemic of Prozac prescribing. When Prozac hit the market in 1987, it was widely hailed as a "wonder-drug," and its prescription sales rose dramatically—by 1996 Lehman Brothers predicted sales of $4 billion a year at the turn of the century (Better than well, 1996, p. 87).[3] But beyond the epidemic of prescriptions, another, less analyzed, part of the Prozac phenomenon is an epidemic of signification that has simultaneously surrounded Prozac in the last few years.[4] Following are some examples.

The *Handbook of Psychiatric Drug Therapy* puts the "something unusual" of Prozac as:

> The recognition that specific neuronal uptake mechanisms for serotonin were present in the CNS [Central Nervous System] suggested, as early as the late 1960s, a potential target for the development of antidepressants. By the early 1970s, the technology existed for the screening of molecules that could selectively inhibit serotonin uptake. In 1972, fluozetine (Prozac) was shown to produce selective inhibition of serotonin uptake in rat synaptosomes. This drug, the first in its class . . . was approved for release in the United States in December 1987. [Its] impact . . . on the treatment of depression has been extraordinary, with more than 10 million people prescribed . . . by 1994. The success appears to derive mainly from side effect advantages over older agents . . . [which has] generated wide patient and prescriber acceptance. (Hyman, Arana, & Rosenbaum, 1995, p. 62)

*Psychology Today* puts Prozac's "something unusual" this way:

> Slowly, stealthily, Prozac is slithering into more and more of our lives and finding a warm place to settle. Even the most casually aware citizen can feel the shift in thinking brought about by the drug's ability to "transform" its users: We speak of personality change, we argue over the drug's benefits over psychotherapy (all those expensive hours of parent-bashing as compared to a monthly dash to the pharmacy); and we let ourselves imagine a world in which our pain is nullified, erased as easily and fully as dirty words on a school blackboard. (Mauro, 1994, p. 44)

*Tribune Business News* puts the "something unusual" as:

> Feeling despondent? Beset by burning stomachaches? Are your arteries hopelessly clogged? Well, you're not alone. Prescription medications for depression, ulcers, and high cholesterol dominated the list of best-selling drugs last year with six of the top ten entries. . . . What's more, these half-dozen drugs generated $8.1 billion, or an impressive 9.5% of the $85.4 billion in prescription drugs sold in 1996. . . . Overall, the sale of prescription drugs to pharmacies rose by 10% in 1996. . . . Eli Lilly's Prozac was the third leading bestseller overall with sales of 1.7 billion, a 14% rise [from 1995]. . . . Pfizer's Zoloft was fifth with sales of $1.1 billion. (Silverman, 1997, p. 216)

[3]This number turned out to be an overestimate. As of this writing, Ely Lilly's third quarter earnings statement reports that Prozac is on track for sales of $2.5 billion in 2000.

[4]I borrow the phrase "epidemic of signification" from Paula Treichler, who has used it in a different context to refer to the "fragmentary and often contradictory ways we struggle to achieve some sort of understanding" of a new and dramatic medical phenomena (Treichler, 1988, p. 31).

Finally, Andrew Weil, in his *New York Times* bestseller, *Spontaneous Healing*, puts Prozac's "something unusual" this way:

> What about depression, which is now epidemic in our culture? I experience depression as a state of higher potential energy, wound up and turned inward on itself. If that energy can be accessed and moved, it can be a catalyst for spontaneous healing. The psychiatric profession treats depression almost exclusively by prescribing drugs, especially a new class of antidepressants called serotonin reuptake inhibitors, of which Prozac is a prototype. The pharmaceutical industry markets these drugs aggressively and successfully, partly by convincing people that they cannot know their full human potential unless they use them. Recently a woman friend of mine in her early fifties went for a routine checkup to her gynecologist, also a woman. After the examination was over, the gynecologist asked her, "Well, do you want me to write you a prescription for Prozac?" "Why should I want to take Prozac?" my friend replied. "I'm not depressed." "How do you know?" asked the doctor. (Weil, 1995, p. 201)

What are we—consumers, providers, concerned citizens—to make of Prozac in lieu of this epidemic of signification? Is Prozac a straightforward example of medical progress? Or is Prozac a complex cultural phenomenon? Is Prozac just good business? Or is Prozac symptomatic of a medical system out of touch with healing and obsessed with technology? How, in other words, should Prozac be narrated with such a diversity of options? Should we be concerned for the coming of a Prozac Nation, or jubilant for new and improved treatments for depression? Is Prozac progress or regress? Panacea or Pandora? Should the clinical science discourse have priority over all others? Why? Why not? What are the ethical issues of Prozac signification? What are the political ones? Who should answer these questions, for whom, and with what claim to legitimacy?

## THE TIME OF CYBORGS

To approach these questions and to get some perspective on the Prozac phenomena, let me start by backing up my frame of reference and considering Prozac within the context of a whole range of new science and new technology (or technoscience for short) which have dramatically infiltrated many of our daily lives. Just think about the amount of time you spend in some kind of synergistic interface with a machine. Indeed, how much time in your day are you *not* on the telephone, at the computer, watching T.V., listening to the radio, in the car, on the train, in a climate controlled environment? How many thousands of ads and commercials have you seen where happiness is promised through a technological interface—a long distance phone call, an exciting new car, sitting by the ocean (simultaneously connected to a global network on your personal laptop computer)? These commercial messages are always the same—technology enhances life and brings smiles . . . *for a price.*

Increasingly medicine too has been dramatically infiltrated by technoscience. Of course, the use technology in medicine is nothing new, but the recent explosions of technical reliance and technical capacity in medicine have created a qualitative

shift in the practice of medicine. Indeed, more and more, medicine may be understood as a kind of "applied" technoscience. New biotechnologies—including advanced imaging techniques, genetic manipulations, organ transplantation, artificial limbs, expanding cosmetic surgeries, and an array of new psychopharmaceuticals—are rapidly turning medicine into technomedicine. Not only has technomedicine become a staple of medical diagnosis and treatment, technoscience has catapulted medicine into an era of physical and mental enhancement. With the further developments of the dawning biotech century, human lifespan, mental and physical abilities, and even personality will be molded in ways which were previously unimaginable (Rifkin, 1998). In this environment, clinicians are in danger of becoming glorified distributors of the new technologies for the giant transnational biotech corporations—sort of like new car dealers with a medical certificate.

From my perspective, the twin epidemics of Prozac prescribing and Prozac signification need to be understood in the context of this explosion of technoscience into medicine. Indeed, Prozac is one of the first of the new psychopharmaceuticals to sit uncomfortably between a treatment and an enhancement, between a medication and a mental cosmetic (Kramer, 1997, p. xvi). But situating Prozac within the context of the new technomedicine is not immediately helpful, because, unfortunately, the technoscience invasion of medicine has happened so fast, and is controlled by such dominant interests, that the standard medical literature has not caught up with the full complexities of technomedicine or even begun to develop a critical discourse of this phenomena. Certainly, with regard to specific biotechnologies like Prozac, medical science (working within the rules, norms and expectations of its own scientific discursive frame) can tell us something about the drug's pharmacology, therapeutic effects, and common toxicities. And certainly, with regard to prescribing Prozac, medical ethics (working within its usual frame) can help us sort out questions of autonomy, informed consent, and beneficence in the dyadic relation between physician and patient. But neither medical science nor medical ethics even scratch the surface of articulating the social, cultural, and political dimensions of a medical technoscience like Prozac. At best, these discourses inform us about the *use* of technomedicine, but they tell us practically nothing about the creation or cultural *effects* of technomedicine.

Thus, before further embracing the joys and smiles of technoscience body enhancement, medical science and bioethics should seek a discursive enhancement to better cope (and struggle) with the rise of technomedicine. One discursive enhancement I have found extremely useful in sorting through the Prozac phenomena is the relatively new, but already quite developed, multidisciplinary domain of "science studies" (Hess, 1997). As Sharon Traweek describes, over the past thirty years there has been "a near avalanche of research on the way communities of scientists, engineers, and physicians [produce] knowledge" (Traweek, 1993, p. 4). Much of the science studies literature consists of detailed ethnographies of the microsocial forces involved in the creation of supposedly neutral, or objective,

science. Over and over again this literature documents that people make science, not some abstract scientific method, and that these people have a variety of interests, blind spots, and unequal power relations that dramatically affect the products of science. In science, as everywhere else, in Bruno Latour's poetic phrase: "The status of a [truth] statement depends on later statements" (Latour, 1987, p. 27). In science, as everywhere else, in the last instance, and increasingly in the bottom line, it is not the world which verifies truth statements, it is other people. Science, on this account, is anything but a common sense "view from nowhere." From a science studies perspective and echoing the title of a leading journal in the field, we must understand *science as culture.*

Summarizing broadly, science studies (and the science as culture perspective) has the effect of "demoting" scientific inquiry from its "special" status as more worthy and more valuable than other forms of knowledge and other forms of inquiry. This does not make science less worthy, but it does (at least theoretically) level the playing field between science and other forms of inquiry. Although there are many differences of opinion within science studies, these conclusions regarding science have been sufficiently rehearsed and documented within science studies that, in Traweek's words, "most [science studies] researchers take these statements to be a sort of boring baseline of shared knowledge in the field" (Traweek, 1996, p. 145). As a result, much recent work in science studies has moved beyond microsocial ethnographies, which detail science's all too human source, and has turned toward articulating the macrosocial and political forces which have elevated science to its current ascendent status. Many refer to this recent turn in science studies as a "new synthesis" which is now routinely labeled the "cultural studies of science" (Pickering, 1995, chap. 7; Rouse, 1996, chap. 9; Ross, 1996a).

Practitioners of this new synthesis are coming not only from philosophy and social sciences but also from literature, women's studies, disability studies, Africana studies, post-colonial studies and other area studies. In addition, many are relying less on modernist skills of logical analysis and qualitative research and more on poststructuralist skills of critical reading and deconstruction. This group is not shy of cultural politics or public controversy. Many are fresh from the "Cultural Wars"—where literary and cultural studies scholars have been involved in the unpopular task of demonstrating the social politics (race, class, gender, homophobic and colonial biases) at play in the supposedly timeless and universal works of art, literature, and philosophy. Having honed their skills in the Cultural Wars these scholars and their progeny are now ready to embark on what many are calling the "Science Wars" (Ross, 1996b). In a nutshell, cultural studies of science has rapidly crossed C. P. Snow's great divide between the sciences and the humanities and is now in the process of political interrogation of the sacred texts of science.

Repeatedly cited as the leading practitioner and inspiration for the new cultural studies of science is Donna Haraway. If asked, Haraway might categorize herself

as a postmodern feminist science historian of the present. In her writings, she has initiated a great expansion of the cyborg metaphor and is a major initiator of what many are calling cyber-feminism and others are calling post-humanism (Braidotti, 1994, p. 102; Halberstam & Livingston, 1995). Before discussing Haraway's cyborg metaphor in more detail, however, it is worth explaining what I mean by "metaphor" in this context, because the surest way to misunderstand Haraway's work is to approach it too "literally" or too "metaphorically" without rethinking the usual meanings of these terms.

Haraway (in the company of most postmodern philosophers and anti-foundational theorists) reverses, rejects, and ultimately displaces the notion that "metaphorical" meaning is significantly different from "literal" meaning. In Haraway's account, there are not "metaphorical" meanings and "literal" meanings (separable on deep ontological or epistemological grounds), there are only different possible meaning formations. For Haraway, the proper questions for particular meaning formations (like bioscience or psychopharmocology), which are always already metaphorical and literal, are not simply the scientific and epistemological questions of whether the meanings mirror the world independent of human constructs. Rather, the proper questions also include ethical and political questions of what world will this kind of meaning formation create. What effects will this meaning formation have on particular living narratives, and who or what is benefiting (and why) by making meaning this way rather than another way?

Thus, when Haraway says, "By the late twentieth century, our time, a mythic time, we are all chimeras, theorized and fabricated hybrids of machine and organism; in short we are cyborgs. The cyborg is our ontology; it gives us our politics," she means to be both literal and metaphorical at the same time (Haraway, 1991, p.150). For Haraway, there is a literal truth to her cyborg claim—something worth struggling over and fighting over—and simultaneously the cyborg metaphor is an "imaginative resource suggesting some very fruitful couplings" (Haraway, 1991, p. 150). In other words, cyborgs make for productive thinking in the current age of dramatic technoscience proliferation. Cyborgs, for Haraway, are cybernetic organisms—systems which embrace living and technological components. Always and inseparably organic and machinic, the cyborg displaces and renders nonessential crusty western binaries like nature/culture, fact/value, pure/contaminated, inorganic/organic, and real/artificial. These distinctions, while useful in the recent humanist past, do not work well in the current post-humanist technoscience moment. Haraway uses the cyborg to enter the fray of science politics not by arguing for a repudiation of science or technology (it is way too late for that) but by arguing for mixing up of the scientific and technological with the ethical, political, and aesthetic. Considering herself a "child of antiracist, feminist, multicultural, and radical science movements," Haraway "yearns for knowledge, freedom, and justice" within the world of science and technology (Haraway, 1997, p. 267). Thus,

Haraway's cyborgs cut through much of the theoretical baggage in technoscience thinking that inhibits her yearning.

Haraway argues that behind the seemingly "natural" evidence of a supposedly objective scientific method, biomedical science is not only culturally constructed, it is also big politics and big business. "Biology," she reminds us, "is not the body itself but a discourse of the body" (Haraway, 1997, p. 217). For Haraway, bioscience discourse is far from neutral (and far from "progressive") in its political and cultural alliances in what she calls the "New World Order, Inc." (Haraway, 1997, p. 2). Indeed, bioscience, while legitimating itself on rhetoric of new scientific progress, is simultaneously bedfellows with many of the old politically regressive power structures of patriarchy, racism, classism, ableism, neocolonialism, and homophobia. These alliances remain invisible, however, if bioscience is able to proceed free and aloof from other critical discourse—free from deep and serious ethical and political questioning, not only about the technical applications of bioscience, but about what projects to take up, who should develop them, and what are the consequences of handing over so much authority to a realm of science independent of politics.

## THE POLITICAL DYNAMICS OF PROZAC

With Haraway's cultural studies of science in mind, let me now return to the question of Prozac. What is the relevance of the cyborg metaphor for the recent epidemic of Prozac prescribing and Prozac signification? How do we go from theoretical analysis to practical politics? How can we assess and understand the legitimacy of Prozac and the dominant psychopharmaceutical trends in psychiatry (which Prozac metonymically represents)? Who (and what) are the "we" who will do all of this? For starters, Haraway's cyborg theory helps sort out what won't work. It is of little use to decry the impurity or artificiality of Prozac-induced mental states. From Haraway's perspective, post-humanity in the New World Order, Inc. is too intertwined with technoscience for these distinctions to be of much use. That means that we can get little help from an appeal to grand narratives that attempt to decide, independent of the details, whether Prozac is an appropriate or inappropriate choice. The usual grand narratives for legitimizing or delegitimizing Prozac are narratives of the True or narratives of the Good. But, with the many Prozac significations available, there is no one grand Truth of Prozac. There are instead many situated truths about Prozac. Similarly, there is no single judgment of the Good with regard to Prozac. In some discourses, Prozac is a dawn of light for millions of depression sufferers, in others it is one of world's newest and most insidious of evils. This undecidable situation does not mean, of course, that anything goes, and certainly not that all technology should be embraced. Both technobliss and technophobia are held in tension in a cyborg reading. However,

the multiple undecidable significations of Prozac does mean that an alternative discourse besides the natural or the artificial, the true or the false, the good or the bad, must be developed to scaffold and navigate questions of legitimacy in the post-human world of cyborgs and cyborg technology.

But what alternatives for legitimizing technoscience discourse arise from Haraway's cyborg philosophy? In short, without recourse to universal truth or universal good, questions of legitimacy come down to local questions of *effect* and of questions of *inclusion.* What are the effects of Prozac? And for whom? Who is included and empowered to create legitimate psychiatric knowledge? Who is excluded and why? Analysis of effects and inclusions are middle level discourses. They do not give permanent or universal solutions, only temporary and situated ones. They result in messy analyses because effects are diffuse and often go in contradictory directions, and questions of inclusion are always transient as stakeholder groups are constantly emerging and disbanding.

In the case of Prozac, let me consider the question of *effects* first. If I start at a broad discursive level, what might be called a cultural semiotic level, a major effect of Prozac is to support a psychopharmacologic, or biopsychiatric, discourse of human pain and suffering which has deeply conservative political ramifications. Biopsychiatry as a way of talking and organizing human pain minimizes the psychological aspects of depression—personal longings, desires, and unfulfilled dreams—and it thoroughly erases social aspects of depression—injustice, oppression, lack of opportunity, lack of social resources, and systematic denigration. Not only that, biopsychiatry mystifies and naturalizes the scientific (and pharmaceutical) contribution to the discourse on depression leaving alternative opinions increasingly difficult to sustain. Biopsychiatry, like other scientific discourse (and this is perhaps their most insidious hegemonic effect), presents itself as a discourse from nowhere. No one claims to decide that depression should be organized primarily around neurophysiology; it is supposed to just be "the way it is." Alternative opinions become just that, "opinions," compared, not to other opinions, but to "facts."

As a deeply conservative discourse, biopsychiatry benefits the currently dominant groups. To state the case polemically, anyone unhappy with the status quo and the emerging New World Order, Inc., should shut up and take a pill. Of course, who is most unhappy and who represents the highest percentages of depressed persons? Women, people of color, the poor, and other victims of societal biases (Kleinman, 1988, chap. 4). Who would stand to benefit the most from a change in the social order? The same folks! However, in the bioscience discourse of depression, the personal is not political, the personal is biological. If we plug human suffering, misery, and sadness into the calculus of bioscience, there is no need to make changes in the social order, instead, we only need to jumpstart some neurotransmitters. There is no need to reduce social harassment and discrimination. Instead, let them have pills. There is no need for workers to take time out from

the job for personal healing, reconsidering life choices, or making life changes. Instead, all people/machines (cyborgs) need is to take a pill and get back to the New World Order Inc. of hyperactive consumption/production.

However, all this being said, it must be added that it is tricky to polemically read effects directly from a discourse. If semiotic readings are done in a heavy-handed way, they leave out the possibility of negotiated and oppositional readings of dominant discourse (Hall, 1993, p. 102). Thus, rather than rest with a broad discussion of the discursive currents of Prozac and biopsychiatry, let me try to articulate more specifically who wins and who loses in the case of Prozac.

One of the most clear and least contradictory sights of Prozac effects is the pharmaceutical company Eli Lilly. It can be argued that, more than anyone else, Eli Lilly benefitted by the advent of Prozac. Prozac sold $2.3 billion worth in 1996, which was 32% of Eli Lilly's total sales (Lilly, 1998).

To put those numbers in perspective, if that money was spent on psychotherapy, it would employ 23,000 psychotherapists for a year (at $100,000 gross income) to provide 46 million psychotherapy hours. By making this comparison, I am not suggesting that psychotherapy is a simple good, anymore than Prozac is a simple good. Psychotherapy, no different from psychopharmacologic technoscience, is also intertwined in political forces that are rarely articulated and critiqued within the psychotherapy discourse community. Perhaps the only thing one could say in favor of psychotherapy is that, compared to biopsychiatry, the earlier era of psychotherapeutic psychiatry was not backed by a major bioscience industry and a new breed of corporate medicine. However, even without getting into a detailed analysis of competing forms of helping and marketing, my brief budgetary comparison with alternative treatment options like psychotherapy does help demonstrate that, whatever other effects Prozac had in 1996, it was an enormous benefit to Eli Lilly in increasing their market share of the "helping industry." Indeed, Prozac contributed one third to Eli Lilly's $1.5 billion in profit that year (Lilly, 1998). With this kind of profit, unless we are to get into the slings and arrows of wealth, there seems to be little need for further analysis on the benefits of Prozac for Eli Lilly.

Unfortunately, from here on out, studying the effects of Prozac becomes increasingly muddled because the vectors of effect are less unidirectional. For example, what about clinical psychiatrists? What is the effect of Prozac for them? They, too, benefit in many ways. Clinical psychiatrists are often, but certainly not always, members of dominant social groups (white, male, heterosexual) and almost always members of the upper middle class. In other words, whatever their social background, they are winners in the current social system. Thus psychiatrists benefit from the general conservative status quo which biopsychiatry supports. In addition, they can charge around $60–75 for a half hour visit for prescribing Prozac. That's not bad money: $120 an hour, forty hours a week, fifty weeks a year, comes to around $240,000 gross income per year. Not only that, through their

prescription privileges they get a leg up on their guild rivals—psychologists and social workers.

On the other hand, clinical psychiatrists may eventually lose out. No longer known as having skills in psychotherapy, that service is rapidly going to their rivals. And, as for the prescribing service they provide, it may eventually be taken over by primary care clinicians, neurologists, psychologists, or nurse practitioners. Thus, clinical psychiatrists are not clear winners here, at least not in the long run. But then, psychiatrists are no longer (if they ever were) a single group, and rapidly clinical psychiatrists are having the least voice among psychiatrists. As if it were coming from a textbook in colonial conquest, psychiatry is being divided into dramatically unequal status groups. These may be articulated as clinical, research, and administrative psychiatrists. Out of these groups, the research and administrative psychiatrists are benefitting the most from Prozac and biopsychiatry: (a) research psychiatrists because of grant money and academic power and (b) administrative psychiatrists because they use biopsychiatry to justify limiting other clinical psychiatric expenses, thus increasing profits for healthcare systems and enhancing their own positions within these systems. Consequently, among psychiatrists, clinicians are most likely to lose out, and this pretty much seems to be the case.

But what about consumers? Technomedicine, or more precisely, technoscience capitalism in medicine (like capitalism generally) is rather complicated with regard to consumer benefit. The mantra in business seminars is "Win, Win." That is supposed to mean when a business wins, the consumer wins as well. Therefore, by this business logic, companies do not exploit consumers, companies only help consumer achieve their desires—otherwise a smart consumer would not buy the company's product. However, as Jean Baudrillard has so effectively pointed out in his "autopsy of homo economicus," the loophole of the Win-Win mantra is that, particularly in a postmodern consumer society, desire is not fixed and businesses can use a variety of methods to stimulate desire (Baudrillard, 1988, p. 35). Consider cigarette companies, or auto companies, or soda companies, or computer software companies. Are the desires these companies create necessary? Can those desires be said in any logical way to rest in the consumer? Clearly there is a tremendous fluidity of consumer desire and Baudrillard makes a compelling argument that it is better to see needs not as the stimulus for production, but the other way around: *the system of needs is the product of the system of production* (italics in original) (Baudrillard, 1988, 42).

If Baudrillard is even partially correct, there can be no simple analysis of the effect of Prozac for consumers. How much do "Prozac needs" start with consumers and how much are they stimulated by psychiatry and the pharmaceuticals? This is an undecidable question because it is impossible to determine authentic individual needs outside of cultural context. There is little theoretical (or political) advantage in a celebration of consumer "euphoria." However, there is certainly no more advantage in a grand critique of consumer "dupes." In spite of the general conservative discourse of biopsychiatry, the clear advantage to the pharmaceuticals

and powerful psychiatrists, and the capacity of the psychiatric/pharmaceutical alliance to stimulate individual desires, there are many ways that Prozac, like other technoscience products, can also empower consumers. For example, consider the situation of the spouse-abused woman who gets enough energy and hope through Prozac to stand up to or leave her man. Or, at the larger political level, perhaps the next Simone De Beauvoir, Adrienne Rich, Kwame Nkrumah, or Angela Davis will be on Prozac. Perhaps, without Prozac, the revolutionary spirits of our imagined future revolutionary will be too exposed and too vulnerable to stay the path of rebellion. Perhaps, without Prozac, they will curl up in a depressive self-loathing rather than change the world.

Still, even it is possible for consumers to benefit; consumers are right to be wary of technomedicine. In the case of Prozac, it seems clear that, in the bottom line, Eli Lilly and the most powerful psychiatrists benefit as much if not more than consumers. At best, consumers can hope for a kind of "trickle down" benefit. Since there are dramatically unequal power relations between the pharmaceuticals, powerful psychiatrists, clinical psychiatrists, and consumers, in a conflict situation between what is good for the consumer and what is good for the pharmaceutical or powerful psychiatrists, who do you think will win? It seems pretty clear to me that pharmaceuticals and powerful psychiatrists are likely to put their interest first. This may be conscious and Machiavellian, but just as likely it may be in the form of unconscious blind spots to other people's needs relative to their own. That seems to leave two positions for consumers (and from my perspective, clinical psychiatrists as well)—outright paranoia and considerable skepticism. There seems little room for blind trust.

One thing should begin to be clear in this very limited analysis of the "effects" of Prozac. The picture is much more complicated and much more problematic than the biopsychiatry literature or the drug company advertisements would suggest. Eli Lilly's advertising slogan, "Neuroscience: Improving Lives, Restoring Hope" may well be true. But improving whose lives and restoring whose hope? Eli Lilly executives? Whatever Prozac may be, it is not simple progress, and it cannot claim to be a necessary or a universally true discourse on depression. Biopsychiatry does not have a divine right to the discourse on depression. To be a legitimate discourse of depression, Prozac and biopsychiatry cannot hide behind the curtain of science. Bioscience must play fair with other possible discourses.

## THE POLITICS OF CYBORGS

This brings me to the question of *inclusion* or what I call in the title, post-human politics of cyborgs. If we follow Haraway and other theorists into the "politics of truth," it becomes clear that one of the most consistent effects of power on truth is the disqualification and prohibition of local and alternative forms of knowledge. Dominant knowledge formations, as a result, too often arise primarily

from dominant groups. As Sandra Harding puts it: "Women and men cannot understand or explain the world we live in or the real choices we have as long as the sciences describe and explain the world primarily from the perspectives of the lives of dominant groups" (Harding, 1991, back cover). The question of inclusions in science is anything but "pure." Indeed, behind the public persona of science, in the sausage factory of knowledge production, subordinate knowledge is excluded and in the process subordinate groups are silenced. In liberal societies, however, knowledge disqualifications like these are achieved not primarily through the legal authority of censorship, but, as Foucault reminds us, by the "ensemble of rules according to which the true and the false are separated and specific effects of power are attached to the true" (Foucault, 1980, p. 132). In short, "truth power" works through the existence of a particular politico-economic regime of the production of truth. From this standpoint, the key issue or task confronting technoscience politics of inclusion is not that of restoring the purity of scientific practice by criticizing its ideological contents, nor, for that matter, attempting to emancipate truth from power. Rather, it is through "detaching the power of truth from the forms of hegemony (social, economic, and cultural) within which it operates at the present time" (Foucault, 1980, p. 133).

Thus, a central task in a post-human politics of Prozac is to challenge the hegemonic regime of bioscientific (and increasingly administrative) psychiatry and their pharmaceutical supporters. Since there are diminishing opportunities for challenging biopsychiatry within the current psychiatric discourse (the reigning ensemble of rules separating the true and the false no longer permit it), one of the few remaining opportunities for challenge and resistance is a politics of activism. Models for this kind of activism exist already in medicine. The medical activisms I have in mind start from the perspective that medicine is, all too often, part of people's problems rather than part of their solutions. These are activisms which build on the strategies which midwives have taken in their battle against organized ob/gyn physicians and hospitals, which La Leche groups have used to help make breast feeding a possible alternative, and which ACT UP has used in their battle with medicine over HIV treatment and research. Perhaps the best rallying cry for these activisms has come from the newly emerging disabilities movement: "Nothing about us without us" (Charlton, 1998). This is a cry for inclusion in knowledge formation more than anything else. It rests on the experience that knowledge that excludes key stakeholders too often shifts in favor of the interests of those included over those excluded. Indeed, in all of these activist movements, it is not that medicine is simply wrong or bad, it is more that medicine is too powerful, too hegemonic, too self-serving, and too unresponsive to alternative points of view. In the face of medicine's political power, these medical activist groups, like feminist and other new social movements before them, adopt a variety of strategies. They strive to change people's consciousness. They build networks of opposition and support. They lobby for protective legislation. And in general they

provide a community of resistance to dominant forms of truth and a community support for alternative knowledge structures.

In the case of Prozac, this kind of "post-human activism" would ideally have sources and coalitions internal and external to psychiatry. Internal activism would involve lobbying dominant psychiatry to reduce its alignment with technoscience and with pharmaceuticals. Activist politics, after all, is a politics of alignment. It is about forming coalitions. Presently, psychiatry is too aligned with the pharmaceuticals and the technosciences they produce and encourage. Twenty percent of the American Psychiatric Association's budget comes from pharmaceuticals and pharmaceuticals are major supporters of psychiatric research (Breggin, 1991, chap. 15). These bioscience industry dollars, in spite of blanket claims of "unrestricted research support," profoundly effect the direction of psychiatric knowledge. Internal activism in psychiatry would attempt to loosen the alignment to the drug companies and increase psychiatry's alignments to patients, consumers, and clinicians. Rather than dominant psychiatrists creating knowledge as unofficial representatives of the drug companies—at conferences funded by drug money or presenting research funded by drug money—psychiatrists would attempt to get more consumer and clinical contribution into psychiatric knowledge. Psychiatry would also create knowledge that includes a variety of research methods. Some of this knowledge would be informed by science, but other aspects of it would include knowledge informed by humanities, interpretive social inquiry, critical theories, and the arts.

New alliances in psychiatry would likely reduce rather than increase consensus in the field. This is direct opposition to the more usual, Kuhnian, understanding of progress in science. Consensus in post-human politics is not seen as a sign of advance as much as a sign of exclusion. Thus, the goal of psychiatry at the present moment should not be increased consensus but increased appreciation of diversity. To make this work, the American Psychiatric Association, for example, would have to become (much more than it is now) a forum for diverse opinions about mental suffering rather than continue its attempts to create a single truth about mental illness and a single standard of care. Funding for research inquiry, on this account, must not be decided by experts within scientific psychiatry alone. A more democratic and inclusive process must decide research inquiry methods and priorities. A more democratic APA would be made up of a patchwork of overlapping alliances and knowledges, not one knowledge formation based on a single authorized truth. In this situation, it would be best to speak in the plural and rename the APA as the American Association of Psychiatries.

External activism to psychiatry has already begun. This activism takes the form of grass roots organizations that provide an alternative discourse to psychiatric treatments. One such group is the Survivors of Psychiatry and another, more specific to Prozac, is the Prozac Survivors group. These groups have web pages, local chapters, newsletters, conferences, protest rallies, etc and they use

them as a kind of cultural politics. Similar to consciousness raising functions of earlier activists groups, they provide a source of critique to dominant power structures. They read technoscience psychiatry against the grain, deconstruct ideological hierarchies, satirize and poke fun of the dominant position, explore alternative possibilities, and in general form their identity in opposition to the "Other" of psychiatric science (see http://www.mindfreedom.org).

Both internal and external psychiatric activists must eventually increase their efforts to lobby congress for protective legislation. Like regulating the cigarette industry, regulating biopsychiatry and the pharmaceutical industry will require many fronts of activity. On the legislative front, laws are needed which reduce the capacity of drug companies to advertise and to support conferences and organizations where they have a direct conflict of interest. Legislation is needed which gives people better work benefits to deal with emotional problems—more time to process a depression rather than being forced back to work as soon as possible. Legislation is needed which would allow non-biomedical treatments the same insurance support which mainstream bioscience treatment is given. Legislation is needed which would improve mental health benefits generally—particularly benefits for psychotherapy—which have all but eroded over the same years of Prozac's rise to dominance. Finally, legislation is needed which takes seriously the fact that social ills and community distress are huge factors in mental health and well-being.

Clearly the political tasks I have presented here are more suggestive than programmatic. In its simplest form, what I am seeking boils down to a call for priority of democracy over science in psychiatric knowledge production. The effects of Prozac, the drug, like other kinds of technoscience, is not clearly oppressive or liberatory. It is both. Sometimes one more than another, but always both. This makes the problem, not Prozac itself, but the politics of knowledge surrounding the discourse of Prozac. Who is included in the process? Who is getting to speak, who is being silenced? How can the knowledge production proceed on a more level playing field? How can more diverse folks get involved with the production and application of psychiatric knowledge? Waiting till the technoscience knowledge is produced, then attempting to regulate that knowledge use, is like trying to delete an email after it has been sent, or perhaps, better yet, like trying to reverse an electric shock treatment. The challenge of technomedicine like Prozac is not only to insure its safe and ethical use, but also to create a more level playing field for knowledge production and generation.

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