Secularism, Multiculturalism and Democracy: Philosophy of Science Issues.¹

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Western secularism has attracted criticism from many quarters in the last decade. Of course multicultural, democratic states must neither favor nor discriminate against the religious and cultural practices of one or more of their constituent citizen groups over the practices of others. From its origins, European-American secularism has been associated with the Enlightenment, liberal democracy, modernization theory, and their commitments to social progress. The binary of secularism vs. religion is networked into a series of other familiar binaries which collectively secure the progressiveness and moral goodness expressed through the exceptionalism and triumphalism of Western modernity and its sciences.² Interlocked with the

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² The term “exceptionalism” is probably most familiar from its usage in historians’ discussions of “American exceptionalism.” Here it is used as do historians of science. It signifies the position that there is one world, one natural order to it, one and only one science capable of capturing that order, and one and only one culture capable of producing that science—ours! That is, our modern Western societies are the exception to the tendency of cultures to tolerate—even prefer—that their knowledge systems, like the rest of their cultural practices, be shaped by particular, local values and interests. Triumphalist histories of science attribute all achievements in which MWS have played a role to those sciences and their technologies, and all errors and moral/political horrors in which they have played a role to “bad science” and to politics. So the achievements are internalized and the bad processes and effects externalized. These positions are egregiously self-serving as well as demonstrably false. They are a target of
secular vs. religious binary in “an endless chain of circular deference” (Jakobsen and Pellegrini, 2008b, 6, quoting Catherine Bell 2002, 12) are freedom vs. bondage, progress vs. backwardness, universal vs. particular, and reason vs. dogma. Secularism is thus a moral and political project, with material and linguistic practices that work over multiple institutions. Thus to give up the secular vs. religious binary is to lose the advantages also of all of the other binaries. So the stakes in supporting secular societies and secular sciences against their religious “opposites” are high indeed. Moreover, societies around the globe are becoming ever more extensively interlinked through ever greater expansion of communication, travel, capitalism, migration, international relations, and the need to confront shared problems such as global warming, migration, pandemics, management of oceans and other shared resources, the sex trade, illegal activities, warfare, and terrorism within and between states. This shrinking of the global village within a prevailing though transforming global social order extends Western secularism into new areas while it also seems to be bringing it face to face with its limitations.

The increased presence of Muslims in Europe and North America, not to mention terrorism committed in the name of Islam, seem to be testing the limits of liberal tolerance of cultural difference that is central to Western secularism, and on which these states as well as the international institutions and agencies they have designed have prided themselves as models of modernity and of social progressiveness. (Levey and Modood 2009). Moreover, quite apart from issues about Muslims and Islam, in the U.S. some Catholic and Protestant groups have been advocating for a variety of state policies that favor their beliefs and practices over those of other
groups, from restrictions on abortion and stem-cell research to the teaching of creationism and intelligent design in public schools, and the display of religious symbols in contexts of government activities. Furthermore, critics from the West and the Third World have been arguing that the particular form of secularism favored in the West is not the only form of secularism, and, worse, that it is itself discriminatory against non-Christian groups: Western secularism turns out to be not as secular as Westerners takes it to be. (Jakobsen and Pellegrini 2008a, Nandy 1990, Third World Network 1993.) Finally, feminists have identified additional problems with secularism that arise from women’s different relation to religion and spirituality in the West and in many other cultures.

Here I want to consider yet another problem that Western secularism raises, in this case for philosophy of science. Should effective systems of knowledge about the natural world, such as so-called indigenous knowledge systems (IK), be discounted as constituting “real science” on the grounds that these systems are deeply permeated by religious and spiritual beliefs? This may sound like merely a philosophic dispute over terminology that has no real-life effects. Yet this distinction between secular and religious/spiritual knowledge-systems turns out to have implications for national and international science and technology policies and practices around the globe as well as for Western philosophy of Western sciences.

The first section below will say a bit more about the context today for examining “the secularist stance” in the West and in its sciences. Section two will summarize the nature and benefits of IK, and section three will identify ways in which the field of science studies, including philosophers of science, has taken positions in recent years that unintentionally align with defenses of IK as just one more of the many diverse kinds of “real sciences.” Section four will point to some additional challenges that the secularist stance raises for feminist theory. The
conclusion suggests four directions in which we can move forward toward addressing at least some of these issues.

1. The Secularist Stance in the West.

For probably most non-Western cultures, understanding nature and social relations is explicitly understood and pursued as a practical project shaped by religious and spiritual commitments and desires. For these cultures, IK constitutes the repository of empirical information about how nature and social relations work that has enabled such cultures to survive and flourish, often for centuries and even millennia. In these cultures religious and spiritual experiences are not banished to the private sphere or conceptualized as a matter of individual belief or of faith, as in the dominant secularism narrative of the modern West. Rather they are situated as part of shared community legacies and practices.

Yet for Westerners, the dominant assumption has been that the search for facts must be protected from influence by any particular social or cultural values. Of course in our actually existing world, the vast majority of what are regarded as the most reliable knowledge claims are the products of corporate, state, and/or military funded research that is mostly overtly designed for practical projects which themselves also are shaped by cultural goals. For example, space science and military science are both clearly practical projects with culturally specific goals. Consequently few researchers except a few physicists, mathematicians, and philosophers of science still believe such absolute value-neutrality is possible; many hold that it is not desirable. And perhaps even more think the issue of value-neutrality irrelevant since so many of such “mission directed” knowledge-claims appear to be reliable at the tasks for which they were intended to provide resources—a point supported also by some philosophers. (E.g., Hacking
Modern western sciences (MWS) pride themselves on such effectiveness at predicting and managing (or controlling) nature and social relations. However, the assumption of the necessity of cultural neutrality, and especially of secular methods and results of research, persists in popular culture, congressional hearings, and natural and social science classrooms, especially when the benefits of scientific method are being extolled. Thus the failure of non-Western societies to embrace secularism in their knowledge systems is taken as proof that such societies are backward and incapable of the critical thought so central to Western public institutions as well as to Westerners’ evaluations of their own cultural achievements.

Regardless of how Westerners evaluate the benefits of their secularist stance, to many non-Westerners, this stance signifies intolerance and disrespect. Moreover, the latter also see it as a symptom of the Western lack of critical self-analysis of what to them appear as clearly religious and cultural values and interests that also infuse MWS and their philosophies, including in the typical Western secular stance. (Yes!) This stance appears to them as part of the “epistemological underdevelopment” of MWS and their philosophies. (Nandy 1990) One group of Third World science and technology intellectuals expresses a widespread, though controversial, proposal for Third World research projects:

Given the destructive nature of contemporary science and technology, and the fact that it is controlled and directed by industrialized states and multi-national corporations, it is essential for Third World countries to create their own indigenous bases for the generation, utilization and diffusion of scientific and technological knowledge. …Only when science and technology evolve from the ethos and cultural milieu of Third World societies will they become meaningful for our needs and requirements, and express our true creativity and genius. Third World science and technology can evolve only through a reliance on indigenous categories, idioms and traditions in all spheres of thought and action. (Third World Network 1993, p. 326

Yet to educated Westerners, the intellectual status of MWS as universally and uniquely valid, their moral energy, and their political value have depended on contrasting them with just this sort
of “reliance on indigenous categories, idioms and traditions.”

Moreover, for those of us who work in Western universities or other teaching and/or research institutions today (apart, to some extent, from religion-based colleges and universities), our professional activities are at least overtly conceptualized entirely within the commitments to secularism of prevailing epistemologies and philosophies of science. This is so regardless of whether and how, personally or in our communities, we are also committed to religious/spiritual beliefs and practices. And it is so in most Western writings about IK which tend either to ignore or distance themselves from religious and spiritual commitments in the production of IK. In modern Western universities we are supposed to be committed to produce and teach supposedly universally-valid ways of thinking, facts and methods of research. Our ontologies, epistemologies, and methodologies of research and knowledge-justification do not tolerate relativist views, and especially not any that depart from the secular.

How ironic that Western secularism, initiated to support tolerance of multicultural religious communities in democratic states, now appears to so many people around the globe as a vehicle of religious intolerance, an obstacle to democratic social relations, and a symptom of the epistemological ignorance and backwardness of the modern West! What is to be done?

As indicated in the introduction to this paper, one might think that this is not a propitious moment to be raising this issue in light of a rise of intolerant and frequently violent religious fundamentalisms, state policy religious commitments, and tolerance of religious influence in the public sphere—not least among Protestants in the United States. Yet perhaps, as part of the diverse responses to these new crises of secular states, the topic of rethinking secularism seems to be moving to the foreground of at least some current intellectual and political debates. For example, the Social Science Research Council (SSRC) has three ongoing projects on “Religion
and the Public Sphere.” “Religion and International Affairs,” and “Spirituality, Political Engagement, and Public Life,” are supported by The Henry R, Luce Foundation and the Ford Foundation respectively. Additionally “The Immanent Frame” is a collective blog that “strives to impact contemporary debates on religion, secularism, and the public sphere in a manner consistent with the SSRC’s mission of producing social science for the public good.” A recent blog features an interview on secularism with Joan Wallach Scott, an eminent historian and author of The Politics of the Veil, who is leader and host at the Institute for Advanced Studies at Princeton of a seminar this year on secularism. It also features a review of a collection of essays responding to Charles Taylor’s A Secular Age (2007) entitled Varieties of Secularism in a Secular Age, (Calhoun et al 2010).

So it is in these intellectually, politically, and philosophically fraught and turbulent contexts that the arguments here are positioned.

2. What are the Benefits of Sustaining Indigenous Knowledge?

What is IK?. First of all, the term has been used to refer to five different kinds of knowledge that contrast with what the West intends by the term “scientific knowledge.” One is knowledge about what the West would refer to as the natural world--knowledge that is self-produced and managed by indigenous people in ways that suit their needs and desires; that is, including their religious, spiritual, ceremonial, and other cultural elements, such as anthropomorphism. Second, it is used to refer only to the environmental (or material) part of this knowledge, excising those culturally-local elements that cannot be translated into modern Western scientific terms. Third, the term is used to refer to any pre-modern understandings and claims about the natural world, in the West or elsewhere. Thus it includes popular European knowledge before the West’s scientific revolution, and before any particular scientific theory,
such as Darwinian evolution. (E.g., Marks 2007)  Fourth, the term is sometimes used to refer to everyday knowledge in the modern West—to “folk knowledge.” Finally, the term is used to refer to knowledge held by non-Western peoples, including both indigenous cultures and such early highly-developed societies as India, China, Arabia, and Islam, as well as complex amalgamations and hybrids of self-produced and borrowed elements, and including religious, spiritual, ceremonial and other cultural elements. I shall use the term mostly its first usage above: knowledge about what the West would refer to as the natural world that is self-produced and managed by an indigenous culture, but sometimes in this fifth, more inclusive, sense.

Problems with “indigenous.” However, the term “indigenous” is itself controversial in ways beyond those already suggested. Just who is indigenous and who is not? Demographers could answer that only a few Africans are indigenous, since everyone else’s ancestors have emigrated from a few sites in Africa to other places in Africa and on to the rest of the globe. But even without such a severe standard of authenticity, there are plenty of opportunities for disputes. Human societies have always had encounters with each other. They have often traded women and children along with bead, shells, and technologies. Indeed, taboos against incest have directed such “marrying out.” Today in some American Indian tribes, women who “marry out” are no longer counted as members of the tribe; they and their children are excluded from the benefits that arrive from, for example, the profits of tribe-sponsored casinos. One can suspect that the boundaries of any particular lineage have probably been fairly fluid over hundreds and even thousands of generations.

Moreover, to refer to IK as science, as I will do here, is certainly to appropriate this kind of knowledge into a Western set of categories. Indigenous groups have not referred to their self-developed and managed knowledge as science. (Of course Europeans didn’t refer to their
inquiries as sciences either until the early nineteenth century; Galileo, Newton and Boyle were doing “natural philosophy.”) Furthermore, ‘indigenous’ is the other half of the contrast with MWS, and this contrast is a Western invention. As indicated earlier, it is used to “other” non-Western cultures, to disvalue these cultures and their abilities and skills of their members, and to confer unique legitimacy and authority on MWS. It obscures the hybrid sciences that proliferate in every society around the world, including those thought of as MW ones. (Agrawal 1995, Gupta 1998) These issues about the term itself certainly raise problems. However, in my view, such problems are not severe enough to give up the benefits of leveling the epistemological playing field for the purposes of this discussion. My point is to use the terms “science” and “indigenous” strategically, that is, to see what we can learn if we refuse familiar kinds of claimed distinctions between these supposedly extremely different kinds of knowledge systems.

**Examples** 4 Of course everyone can think of examples of IK. Here are six that demonstrate diverse kinds of natural science knowledge. 1) Big Pharma’s extraction of indigenous pharmacologies from the disappearing societies of the Amazon rain forest or tropical Africa are frequently in the news, whether because of attempts to create fair contracts between indigenous peoples and pharmaceutical companies, or in the context of debates over whether to try to preserve biodiversity and knowledge about it “in situ” in the indigenous societies, or “ex situ” in seed banks and museums. This kind of European appropriation of IK dates back to the earliest encounters between Europeans and non-Europeans. (Harris 1998, Schiebinger 2005a, 2005b)

2) African women have developed a number of highly nutritious fermented foods that have been used to ward off starvation in times of famine and on long journeys across the Sahara. Yet today international aid agencies import less nutritious foods from elsewhere at great cost

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4 Many readers familiar with the IK discussions will want to skip at least this section, and perhaps to Section 3.
instead of investing in this local production. (Appleton et al, 1995)

3) We now know about many Asian health practices, such as acupuncture and various exercise regimes. The UCLA medical school has an Asian medicine clinic, directed by a M.D. from UCLA who also has the highest degree from a Hong Kong medical institute.

4) Anyone who visits a museum featuring crafts of ancient and non-Western cultures will have been introduced to the sophisticated knowledge necessary for manufacturing the textiles and gold and silver jewelry of royalty, as well as the pottery and metalwork required for everyday household and agricultural projects. Some of the glazing techniques used on the pottery and jewelry are lost; Western chemists have been unable to reconstruct this science/technology.

5) The complex navigational strategies of Pacific Islanders have been reported by many ethnographers. These peoples developed knowledge and technologies for navigating 5000 miles an open canoes across the Pacific to New Zealand and Australia, and returning to their homes. (Goodenough 1996, Hutchins 1996) The U.S. Naval Academy at Annapolis reportedly is worried that in an age of the Global Positioning Systems, sailors have lost the astronomical, oceanographic and climatological skills to enable them to survive should their GPS become disabled. Reportedly they are restoring courses in these kinds of IK.

6) Canadian Inuit geese hunters have developed complex knowledge of the habits and necessary environments of the geese that provide a main source of food for them. They have developed social practices and rituals that insure the sustainability of these environments and the supply of geese. They conceptualize the geese as capable of two-way communication with the hunters about the geese’s environmental likes and dislikes, and they practice social ceremonies that insure sustainable hunting practices. (Scott 1996)
The benefits of these kinds of IK for the peoples who produce and manage them may or may not be obvious. Here are some main such resources that they provide.

**Benefits for indigenous peoples.** First, such knowledge systems have been continually tested and adapted to changing natural and social environments, often for centuries and even millennia. They have enabled those cultures to interact effectively with their environments for long histories. Thus these sciences tend to be empirically reliable in the relevant natural and social environments. (Appleton et al, 1995, Goodenough 1996, Scott 1996) While these achievements have often been politically defeated by the immense power of Western expansion, they have not been disproved (to borrow a point from Maffie 2009a). These knowledge systems, too, are part of the valuable legacy of human knowledge achievement. Of course this is not to say that IK have no serious limitations; every human knowledge system does. Sometimes, such limitations may lead to nasty, short and brutish lives, as is the case also for so many people living modern societies today, such as those already suffering the floods, mudslides, hurricanes and other effects of contemporary ignorance of the effects of global warming and of scientific ignorance about dangers to environments and the people who depend upon them.

In the second place, this knowledge is what has enabled indigenous peoples to preserve their own environments. When they lose this knowledge, they encounter the destruction of the environments on which they have depended for food, clothing, medicine, shelter, and other necessities of daily life. (Maffi 2001, Nader1996, Shiva 1989).

Third, there are many poor societies around the globe that do not have access to Western medicine, pharmacology, food production, or manufacturing. Such poor people live also in industrialized nations, in both rural and urban environments. For them, there is no choice. Their physical survival today depends upon being able to take care of their own needs for food,
housing, clothing and household supplies, travel, health, medical and pharmacological practices, and protection from often dangerous and increasingly impoverished environments. Few of the more privileged of the globe’s inhabitants could survive such environments with only the meager resources that modern scientific rationality and technical expertise would provide.

Next, these knowledge systems, too, are co-constituted with these cultures’ intellectual spiritual/religious, and ethical legacies, just as are Western ones, as the field of science studies has documented. They are deeply intertwined with the ways cultures are organized and structured, and with their members’ cultural identities. It is not just that cultures influence already pre-existing sciences, or that sciences shape pre-existing cultures (though both of these phenomena do occur). Rather social formations and scientific institutions and practices tend to come into mutually supportive existence together, both in our own Western societies and in others around the globe. (Cf., e.g., Hess 1995, Shapin and Schaffer 1985, Jasanoff 2004, 2005.) Indeed, even historical forms of such regulative ideals as objectivity are co-constituted with historically specific kinds of ethical social identities. (Daston and Galison 2007. Thus IK are a central part of these cultures sense of themselves, who they are and what they value in life. Such IK can be updated and modernized to accommodate within their own cultural frameworks contemporary understandings of nature and social relations. As one group of Third World intellectuals has put the point:

Evolving indigenous scientific culture requires Third World scientists, technologists, decision makers and activists to appreciate the true value of traditional science and technologies. Traditional technologies and medical systems should be upgraded, developed and promoted. They should form the basis for the evolution of indigenous, but thoroughly contemporary, alternative technologies and health care systems. (Third World


To sense the psychological and social stress that can come from being asked to give up such a part of one’s sense of self, culture, and legacy from one’s ancestors, look at the deeply felt emotional and intellectual dislocation Westerners have felt at the thought of separating ourselves even in the tiniest ways from the Enlightenment and its models of ideal knowledge!

Other peoples’ defenses of their own knowledge systems also are a valuable political resource for their struggles to protect their cultures from destruction by continued Northern economic, political, and cultural expansion. (Escobar 1995, Hayden 2005, Sachs 1992, Sardar 1997, Scott 1996)

Finally, these culturally-embedded knowledge systems are a rich resource for the advance of human knowledge. It is precisely their roots in non-Western cultural legacies that enables them to come up with continuingly innovative and valuable responses to changing social and natural environments.

So these are a few of the important ways in which indigenous cultures benefit from the production and management of their own knowledge systems. Yet the flourishing of these knowledge systems also can provide significant benefits for Westerners.

**Benefits for the West** First, we can learn from other cultures’ knowledge systems new facts about nature and social relations, as Westerners always have done. Other cultures have asked different kinds of questions about different environments, drawn on distinctive local discursive traditions, and used methods unfamiliar or disvalued in the West. Commercial enterprises, from colonial botany through today’s Big Pharma, have always understood how valuable are these other knowledge systems, and have actively sought to turn native informants’ knowledge into the kind of culturally anonymous information that Western corporations can use,
buy, and sell around the globe, as indicated earlier.

An especially important research issue here is to understand better the complex relations between cultural, linguistic, and biological diversity. Recent work in this area raises many questions. (Brush 1996, Maffi 2001, Muhlhausler 2001) It turns out that the areas of the globe experiencing rapid loss of languages and cultures map closely onto the areas where biodiversity is most rapidly decreasing. What causes this startling relation between language, culture, and natural environments? (One possibility: parts of the environment not named or “talked about” tend to be treated as valueless. See Muhlhausler 2001) Moreover, is it only the indigenous societies that should be assigned the responsibility for reversing such losses? If not, what are appropriate roles in such a project for Western societies? And how should IK be preserved and nourished? Gene and data banks take the aspects of interest to Westerners out of the cultural contexts that produced and gave them meaning, thereby eliminating their dynamic and indigenous character and often putting them out of reach of indigenous peoples. Yet the indigenous societies themselves are rapidly disappearing, along with their knowledge. (In addition to sources cited, see Goonatilake 1998, Hayden 2005)

Another important benefit for Westerners is that learning about other cultures’ knowledge systems exposes Westerners to unfamiliar logics of nature’s order and of research. One can practice giving up some of the supposedly universally valid Great Binaries of modern Western thought, such as facts vs. values, anthropomorphism vs. “dead matter in motion,” knowing that vs. knowing how, the unity vs. the multiplicity of sciences, and the like. Moreover, grasping such unfamiliar logics reveals the sophisticated abstractions and theoretical frameworks invented in those supposedly primitive societies. Colin Scott (1996) points out that the root metaphors of our own sciences become implicit and invisible to us, while we have little trouble spotting other
cultures’ distinctive metaphors, models, and analogies. (Cf. Hesse 1966) It can come as a shock to discover that our own claims that we took to be completely factual are part of powerful suppressed metaphors and models of our own, ones that we thought we had left behind. Consider, for example, the metaphor of nature as a machine, our planet as the center of the universe (“The sun rose this morning at 7:32.”), the earth as a great living body (“The miners have found a new vein of ore”), or of science as a search for religious or moral salvation. Thus coming to see the world around us through others’ interests, values, discursive legacies, and practices suggests that it can be rational to think in terms of a world of multiple effective scientific rationalities. (Cf. Prakash 1999).

Additionally, there are ethical and political reasons to value these knowledge systems. As suggested above, what does it mean for Westerners to refuse to acknowledge the legitimacy of other cultures’ intellectual legacies, especially when we have in the past and continue today to find it appropriate to plunder them in order to strengthen our own projects? Such considerations also suggest that we need to scrutinize the ethics and politics of extracting information from already politically and economically weakened cultures. On the other hand, it cannot be desirable for Westerners to fail to grasp the astonishing diversity of fruitful human interactions with social and natural environments. (Cf. Kellert et al 2006.) But what is the best way to organize such projects?

Finally, gaining a more reliable understanding of others enables us better to grasp the limitations of our own philosophies of science, the epistemologies of which have persistently been categorized as underdeveloped by Third World science and technology intellectuals. (Nandy 1990, Third World Network 1993). Our philosophies of science seem to lack sufficient resources to break out of conventional exceptionalist and triumphalist stances when they are
faced with the kinds of challenges presented by effective and powerful knowledge systems of other cultures. To put the point another way, this kind of argument directs attention to the necessity of strengthening the regulative ideals to which the modern Western philosophy of science legacy is so committed. Through recognizing the distinctive strengths and limitations of other cultures’ knowledge systems, one can strengthen the objectivity, rationality, and good method of modernity’s own knowledge systems. (Harding 1998, 2011)

Let me remind listeners that the argument here is not that indigenous peoples should have access only to their IK systems, leaving MWS firmly in Western hands. Many non-Westerners participate in the production of MWS in their own labs and in labs in the West. Many do not particularly value “their own” IK systems and do highly value MWS. The argument here is rather that Westerners misunderstand both our own sciences and those of other cultures when we persist in the exceptionalist (and triumphalist) assumptions that nature’s order is singular, only the modern West can detect it, and thus only the modern West has been able to develop reliable and useful knowledge of nature’s order, and is capable of doing so.

So we seem to have a standoff. On the one hand, it seems absolutely clear that public institutions, including scientific ones, must be protected from the influence of particular religious institutions in order to maintain multicultural, democratic societies. On the other hand, the secularism requirement, at least in its most popular current form in the West, seems to threaten the flourishing of multicultural democratic societies. Let us look further into the criticisms of Western secularism.

3. Scepticism About Secularism

Sources. Skeptical arguments in the West about the classic secularism narrative have
been arising for almost half a century. There seem to be three main sources for such stances. (Jakobsen and Pellegrini, 2008b) One was the emergence of anti-authoritarian social movements and postcolonial criticisms in the West since the 1960’s. A second was the economic recession of the 1970’s, in which the de-development and mal-development of purportedly underdeveloped societies created by Western modernization policies became painfully visible around the globe. According to the West, modernization required the transfer of scientific rationality and technical expertise from the West to the underdeveloped societies. With the recession, questions arose about how free of specifically Western capitalist, expansionist, and liberal democratic values were modernization theory and its development projects after all. (Escobar 1995, Sachs 1992)

A third source of skepticism was the success of the religious revolution in Iran. According to the dominant secularism narrative, this wasn’t supposed to happen. Increasing modernization would spread secularism, decreasing the power of institutionalized religions to shape public policies and governance in nation/states. Yet the Iranian religious revolution occurred in a society that had earlier embraced a secular state. It did happen, and it turned out to be just the first of an increasing number of such transformations of formerly secular states into ones with official religious commitments. This is paradoxical from the perspective of the classical secularism narrative.5

Co-constituted with Protestantism Many of the skeptics now hold that the secularism of modern Western states has from its origins consisted of deeply Christian commitments, and, indeed, specifically Protestant ones. Whether explicitly or only implicitly, modern Western secularism and Protestantism co-constituted each other at their origins. After all, Protestantism

5 One can wonder if the “nation-state” isn’t itself part of the problem for the secularism narrative. Doesn’t its explicit commitment to an ethnic and frequently religious identity as a distinctive “people” conflict with the multiculturalism of any democratic state? How should the relations between secularism and nation-states be understood in the context of achieving democratic, multicultural global social relations? (M&L)
secularized certain practices of the Roman Catholic Church, turning them over to the laity. Three features of Western secularism mark it as distinctively Protestant. One is its conceptualization of religious commitments and experiences as individual rather than collective, community ones. Another is thinking of religious commitments as beliefs or as “faiths” rather than as daily practices, group ceremonies, and/or rituals. Consequently, third, there is the insistence that religious and spiritual experiences and commitments be assigned primarily to the private sphere rather than to the public sphere. As one critic puts the point, in Western public life Protestant commitments tend to disappear into state secularist policy, leaving only Catholicism, Judaism, and all of the rest of the world’s religious commitments visible specifically as religious ones. (See xxx in J&P)

Does secularism have racist effects? Shannon Sullivan (2010) has argued that U.S. philosophy’s secularism has racist consequences for the discipline. “Given that religion and spirituality often are important components of the lives of people of color, a philosophy that is hostile to religion tends to produce a chilly climate for them. That chilly climate helps ensure the ongoing whiteness of philosophy by implicitly discouraging people of color to enter and remain in the academic discipline of philosophy.” As an example of such hostility she quotes Richard Rorty (2003) “…we secularists have come to think that the best society would be one in which political action conducted in the name of religious beliefs is treated as a ladder up which our ancestors climbed, but one that now should be thrown away.” (142) Another example she points to is that feminist philosophers often have been concerned to state that religion has no place in a women-friendly and anti-sexist world. Shannon thinks these philosophers are distinctive not in dismissing religion as a meaningful part of a philosophers world view, but rather in dismissing it
That is, philosophers usually dismiss religious and spiritual commitments as irrelevant to philosophic issues. Whether or not blatant, I think this dismissal signifies the still prevalent colonial attitudes that are all too comfortably assumed by most Western scientists, social scientists and many other educated people.

Sullivan argues that the issues central to the academic field of philosophy of religion, such as questions about God’s existence and nature, the problem of evil, reasons for (dis)believing in miracles, the relationship of faith and reason, and the relationship between religion and morality—these questions tend to appear irrelevant to people of color in the U.S. For them religious and spiritual matters have been linked to their daily experiences in a white supremacist society rather than to such epistemological and metaphysical issues. Drawing on African American and Latino/a writers, Sullivan points to the significant role that the Christian tradition and church have played in sustaining African American, Hispanic and Latino identity in the U.S. Such tradition legitimizes and frames the histories and everyday experiences of their suffering, as one can find for example in the civil rights movement and in liberation theology among Latin Americans. “What these accounts demonstrate is that for many Hispanic/Latino and African Americans, religion primarily centers on concrete struggle for social-political justice and personal meaning, not abstract metaphysical debates about God’s existence.” Philosopher Charles Mills argues that “the silence about race and racism in most of mainstream Western philosophy implicitly excludes people of color from participating in the field. The message sent by this exclusion is that the lives of people of color do not matter enough even to be acknowledged in philosophic discussion.” (1998, 3) Cornel West has persistently raised similar issues in his many books. (1989, 233).6

Way-seeking. Sullivan’s account recognizes that for the African Americans on whom

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6 See also Harris (1999) and Sullivan (2006).
she focuses religion and spirituality are linked to their daily experience as they “struggle for social-political justice and personal meaning.” Religion and spirituality are about their suffering, their daily survival, their own identity as unjustly treated by white society, and the ennoblement that their struggles for dignity can bring. Yet many participants on both sides of disputes about secularism fail to recognize this set of concerns as central not only to those struggling for social justice in the U.S. and Latin America, but also more generally to non-Western cultures that have less reason than Westerners to think that they can rely on their own abilities to conquer life’s challenges. The knowledge that such cultures seek and value has the religious/spiritual/moral properties of enabling them to survive and of giving meaning to the hardships of their lives. Philosopher of science Jim Maffie has been especially eloquent about this feature of Native American thinking and practice, which he identifies as way-seeking. Writing of the place of inquiry about the natural world within such a context, he says “…[O]ne cannot evaluate Nahua inquiry by scientific norms, values, and goals without begging the question in favor of the epistemological legitimacy of those norms, values, and goals…” (2003, 71).

The Nahua regarded life on earth for human beings as one filled with pain, sorrow, and suffering. The earth’s surface was itself an extremely treacherous place. Its name, tlalticpac, literally means “on the point or summit of the earth,” suggesting a narrow, jagged place surrounded by constant dangers. The Nahua sought practicable answers to what they regarded as the defining question of human essence: “How can humans maintain their balance upon the slippery earth?” Together, this situation and question constitute the problematic which functions as the defining framework for Nahua inquiry (be it epistemological, moral, aesthetic, or prudential). (75-76)

So the secularism of MWS not only seems preoccupied with issues that are irrelevant to non-Western cultures’ religious and spiritual experiences. Worse, it fails to identify what those experiences are and how they function in daily life. It misreads them through the Christian and Protestant lens of Western secularism and rejects the adequacy of indigenous knowledge because it is not focused on the kinds of issues important to socially, economically, and
politically advantaged modern Westerners. Finally, it fails to recognize the similar collection of Protestant religious and moral values and interests (not to mention the plethora of rituals and ceremonies) that infuse modern Western public life, including its sciences. Consider, for example, using experimental method to “understand God’s mind in even greater detail,” attempting to achieve salvation through seeking knowledge, and as one historian of science has argued, staging atomic bomb testing as ritual and ceremony. (Gusterson 1996. See also Needham 1969, Noble 1995.)

Justifying colonial violence. Jakobsen and Pellegrini (2000b) point out how this dominant secularism narrative justifies colonial violence. As indicated, other cultures often openly resist what they perceive to be the Christian and Protestant characteristics of the West’s secularism. Many Westerners, too, have perceived such resistance in moral and religious terms. Those who resist secularism are threats to the moral (Protestant) commitments of Western modernity, not simply to intellectual commitments. Non-Christians have often been perceived not just as ignorant but as evil in their worship of “idols” and “false Gods.” They must be convinced of the superiority of Western ways of living “for their own good.” Those who resist are perceived to be against the kinds of community practices and moral goals through which peoples of European descent define themselves and their superiority. (Sands 2008)

Multiple modernities, rationalities, sciences…and secularisms? Finally, many scholars have argued that just as modernities, rationalities, and sciences must be conceptualized as plural, so, too, should secularisms. From another perspective, since religions are multiple, then just what secularism consists in will vary from one religious context to another. In different religious contexts different forms of secularism emerge. Thus, to put this point another way, secularism is always conceptualized within religious understandings of the world. (Cf. Calhoun et al 2010),

7 To pursue this issue further, see, for example, Eisenstadt 2000, Harding 2008, Kellert et all 2007, Prakash 1999.
Kuru forthcoming, Jakobson and Pellegrini 2008, Levey and Modood 2009.)

4. Science Studies Aligns with Indigenous Knowledge

Recently philosophy of science and science studies explorations of how (and how not) to depart from positivism have produced analyses that align with the refusal to see religious or spiritual features of scientific projects as in themselves disqualifying such projects from producing “real knowledge.”

These accounts are grounded in historical and contemporary empirical studies of how the very best Western science projects have conducted their research. Thus they do not usually discuss IK, and they only rarely directly address how religious or spiritual commitments have shaped the very best Western research. Nevertheless, these expand our understandings of MWS in ways that raise the possibility that the religious/spiritual commitments of other cultures knowledge systems are insufficient grounds in themselves to evaluate such knowledge claims as not “real science.” (See. also Seth 2009) Here are six such tendencies.

a) Co-production of science and society, so no autonomy of science from society.

Sciences and their social orders always co-constitute or co-produce each other. So there can exist no absolute “autonomy of science,” as the older philosophies of science argued. (Shapin and Schaffer 1995, Jasanoff 2004) Thus facts are never completely autonomous from values and interests. This new understanding began to emerge five decades ago with Thomas S. Kuhn’s demonstration that the very best sciences exhibited an “integrity” with their historical era; they made the kinds of assumptions and focused on the kinds of problems characteristic of their

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8 See Warwick Anderson’s (2009) different but related analysis of “alignments”—shared “vibes,” as he puts the point—between postcolonial theory and science and technology studies.

particular social moment, but not of earlier or later ones. (Hollinger 1996, Kuhn 1970) In the following decades, the rich field of historical, sociological, ethnographical, and discursive studies of MWS articulated how the very best scientific knowledge was “socially constructed.” That particular locution, which misleadingly seemed to suggest that nature played no role in such social constructs, as well as that “the social” somehow existed outside of and prior to scientific projects, has now been replaced by the more accurate term the co-production, or co-constitution of sciences and their social orders. Sciences and their societies co-produce, or co-constitute, each other. (Shapin and Schaffer 1985, Jasanoff 2004, 2005.) Facts are never completely autonomous from values and interests. (Hollinger 1996, Kuhn 1970) Thus the reality that other cultures’ knowledge systems are deeply infused with their values and interests, including religious and spiritual commitments, cannot be a sufficient reason to dismiss them as not scientific.  

b) Effectively intervening in nature, not just representing it, is a foundational criterion of real science. Western philosophy of science has tended to overvalue representing nature’s order over intervening in it. (Hacking 1983) This argument undermines the claimed superiority of theoretical accounts over pragmatic ones, and thus of scientific over technological intervention. These insights make room for the perception that IK’s excellence at intervening in nature advances its qualifications to count among sciences. Hence knowing-how is much more important to “real science” than the knowing-that enthusiasts could recognize. Moreover, technologies are not just mere applications of scientific knowledge but always also potential means of advancing and transforming such knowledge. (Maffie 2009, Nowotny et al 2001) “Pure knowledge” vs. its technical application is no longer always a useful distinction.

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10 Though Kuhn persisted in seeing scientific change as entirely driven by “internal” mechanisms. That is, Kuhn was never a “Kuhnian.”
11 See Viveiros de Castro’s 2004 interesting contrast of IK and MWS ontologies.
c) **Who is a scientific expert? Expertise Reconsidered.** Harry Collins and his colleagues, among others, argue that scientific expertise has been far too narrowly restricted. It tends to exclude non-professionals whose *experience* enables them to “know what they are talking about.” (Collins and Evans 2007) Wouldn’t the producers and users of IK qualify here? Relatedly, Ulrich Beck (1986) has argued that today in a variety of ways the production of scientific knowledge is being “demonopolized” from the control of official scientists. David Hess (2007) and Karen Backstrand (2003) have charted the importance today of many kinds of “civic science” and “citizen science,” in which ordinary citizens themselves make important contributions to the advance of scientific knowledge through the questions they ask, and their investigations of such phenomena as their environments and their illnesses, often in alliance with official scientists or engineers.

d) **Nature disordered, MWS disunified and plural.** Philosophers and historians have argued for the disunity of MWS (Galison and Stump, 1996), the “disorder of nature” (Dupre 1993) and for pluralism within MWS. (Kellert et al 2006) If this disunity and pluralism is both a fact and also often desirable, as these authors argue, it would seem that IK can make a compelling bid to join such disunified multiple investigatory institutions.

e) **Modernity/tradition contrast often misleading.** Postmodernism has been one source of critical questions about the West’s dominant conception of secularism. The postmodern critics have given us historicizations of the supposedly universally-valid bedrock assumptions of MWS that reveal their historically specificity and thus the parochiality of claims for their universality. Meanwhile, postcolonial critics’interrogate the reliability of any accounts of what constitutes the traditions of a culture. Moreover, the analyses of multiple modernities have documented how different cultures have developed their own distinctive forms of modernity that fit with their
particular cultural legacies and current needs. (Eisenstadt 2000) Thus these analyses open up conceptual space for recognizing culturally different sciences as part of those culturally distinctive modernities. What counts as tradition and as modernity is continually contested, negotiated, rearticulated and adapted to new circumstances. Accounts of the empirical reliability of IK and of the hybridization of IKs with MWS elements seem much more plausible in the context of these discreditings of the modernity vs. tradition binary.\textsuperscript{12}

f) “Right sight” as a moral position. Historians Lorraine Daston and Peter Galison (2007) have argued that epistemology “always begins in fear” that one’s knowledge claims are not adequate. They show how standards for “right sight” in the sciences have shifted with the introduction of new technologies of observing and representing nature (the camera, trained judgment, computers). Deep moral anxieties become visible in those who have been committed to the older standards for objectivity as well as in those at the forefront of the new standards. Thus epistemologies are always also moral positions, they argue.\textsuperscript{13} Similar arguments have been made by postcolonial and feminist critics of the Eurocentric and androcentric character of modern Western standards for objectivity.\textsuperscript{14} This insight enables us better to understand why it has proven so difficult for so many educated in Western philosophies of science—around the globe as well as in the West—to give up even the most problematic features of positivism in spite of what would be counted in less emotion-laden cases as compelling evidence against them.

There is one more literature in recent science and technology studies that also aligns with reevaluations of the scientificity of indigenous knowledge traditions and that has been making

\textsuperscript{12} See Santos 2002 for an illuminating account of how cultures tend to contain both narrower and broader versions of the ideals that are most important to them (such as dignity or, we can add, rationality, or secularism). The broader versions frequently contain tendencies that have been emphasized in efforts to transform the ideals. In such ways, both tradition and the need for conceptual change are honored.

\textsuperscript{13} See also Jasanoff’s (2005) analysis of the necessity of differing strategies for achieving objectivity in the evaluation of biotechnologies in the different national moral/political climates of Germany, England, the E.U. and the U.S.)

\textsuperscript{14} These arguments share features with the reevaluations of expertise mentioned above.
contributions to the more general skeptical evaluations of secularism. That is feminist work.

5. Feminism and Secularism

“The Woman Question”’s entanglement with secularism issues. “The woman question” has always been deeply entangled with the secularism vs. religion binary in large part because women and their expected behaviors so regularly are positioned as the most important exemplars of the religious and moral commitments of their cultures.\(^1\) Both in the West and in other cultures women are conceptualized as more deeply embedded in their particular cultures than are men. Women’s clothes, child-bearing and domestic responsibilities, and their centrality to issues of sexuality, family relations, and consequently to senses of cultural tradition all make them less likely than their brothers to be able to achieve the de-culturation of cosmopolitan “citizens of the world,” so to speak, either in their own society’s eyes or in the eyes of secularists.\(^2\) In particular, they are positioned in complex relations to their own religions.

Patriarchal religions have rightly been blamed for enforcing women’s subjugation, often in hideous ways--from witch hunts, foot-binding, and widow-burning to brutal control of women’s marriage and reproductive practices and honor killings. This is as true in the history and present practices of the West as in other parts of the world. On the other hand, secularism has not proven a consistent antidote to the patriarchal control that women have sought to escape. Within Western states explicitly grounded in Enlightenment secular principles, it has taken huge political struggles to gain formal equity for women, and they have yet to gain actual social and economic equity, not to mention sexual equality, with their brothers. In the West newspapers are still full of accounts of the rapes, murders, enforced sex-work, abduction, slavery, child

\(^1\) This is ironic since women are also stereotypically positioned as closer to nature, at least in the modern West.
\(^2\) For modernization theory’s troubled relations with women and their worlds see my 2008 and Catherine Scott 1994.
abandonment and abuse, and other kinds of hideous treatment of women and children. It has seemed acceptable for the legitimate rage at the miserable conditions so many male workers must bear to be displaced into the only context in which oppressed men correctly sense that they can get away with expressing rage, namely in their family and other intimate relations.  

On the other hand, women have developed distinctive ways of using their religious experiences and identities to transform both their religions and their own social and political statuses. Thus religious identities have provided useful sites in which women have been able to empower themselves and to transform dominant institutions, including their religions. This is so from women’s participation and often leadership in the northern European Protestant reform movements in the seventeenth and eighteenth centuries to the religious feminisms developed especially since the 1970’s within so many cultures around the globe, including Protestantism, Catholicism, and Judaism. Islamic feminism today, for example, is the site of emerging radical transformations of both Islam and of women’s status. (Gole 2000, Sands 2008, Joan Scott 2007) Secularists, including feminists, need to grasp the multiplicity of feminisms, of religious identities, and of secularisms that have been developed in different cultural contexts, and to understand the contributions made to multicultural democratic social relations by such reworking of religious identities. In these complex conditions, feminist secularism has often been problematic.

Feminist secularism has advanced racism and colonialism. Feminist secularism in the West has again and again had the effect—and sometimes the intention—of advancing racism and colonialism. Sands (2008) shows how this worked for nineteenth century U.S. feminism. A number of late-twentieth century U.S. feminists have joined other secularists to create such

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17 As Marx well understood when he pointed out that when every industrial worker gets home at night, he can function as a capitalist with his own, personal “proletariat.”
racist effects in academic philosophy, as Sharon Sullivan argues. (Sullivan 2010). This can occur entirely unintentionally, as one can see by noting that these very writings also develop powerful anti-racist arguments. The point here is that insofar as Western feminists unreflectively align their philosophies and social studies of science with the distinctively secularist commitments of Western philosophy, they, too, advance continuing colonial and racist understandings, attitudes, and practices toward Third World peoples. Such an alignment has been all too common in history. In recent years such alignments have been especially visible when Western feminists have unthinkingly sought to improve conditions for Third World women by criticizing the latter’s cultural practices. Indeed, in the Third World, feminist projects—whatever their good intentions—are all too often perceived as Western imports and thus as continuations of colonial and imperial relations. This is so even when it is local, Third World feminist groups who have such projects. To say this is not to approve of the female genital mutilation, widow-burning, honor killings, or other practices that are violations of universal human rights. Rather it is to recognize the reality of how difficult it is to keep the politics of feminism untainted by Third World perceptions of continued Western colonialism.  

Are women agents of progressive social change? Finally, women are rarely seen as agents of progressive social transformation. In the interview with Joan W. Scott for the SSRC blog (SSRC 2010), Scott suggests that the recent secularist preoccupation with Muslim women’s veiling (especially, for example, in France) could be explored as a displacement of racist commitments over to issues about gender and sexuality. That is, she is arguing that it is racist as well as sexist to refuse to position women as effective agents of progressive social change. In

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18 Notice how in recent weeks this same kind of issue has arisen with respect to whether and how Western states should intervene to prevent the slaughter of Libyan citizens by their ruler. Of course it has a long history in criticisms of Western support of Israel in the face of the latter’s oppression of Palestinians.
contrast, a number of scholars have examined the innovative transformations of Muslim
women’s activities and statuses, as well as of Islam itself, that have been and are being created
through Muslim women’s strategic refusal to give up either the veil or the right to define for
themselves what is appropriate for them to do. (E.g., Gole 2000, Scott 2007). Clearly rethinking
Western secularism must also be on the agendas of Western feminists.

6. Conclusion.

I take away four important lessons from the issues raised in this paper. First,
commitments to multicultural democracies require that we distinguish between church and
religion/spirituality. The distinction here is between institutionalized religion and peoples’ own
religious/spiritual experiences, practices, and commitments. Charles Taylor (2009) argues that
this conflation is the fundamental source of Western inabilities to think clearly about secularism
and the state. Of course each can tend to inform and leak into the other. I think Taylor is
arguing for retaining a commitment to the protection of state policy from church influence,
globally as well as locally. It is not clear to me how this will work out in a world where so many
states seem to want to make religious commitments, and the “secularism” of so many Western
states has turned out to mean a commitment to significant features of Protestantism. It seems to
me that this understanding needs a more nuanced articulation. At the least, one would want the
separation of “church and state” necessary for multicultural democracies, whether local or global
in scope, to forbid state disvaluation or suppression of peoples’ individual and collective
religious and spiritual experiences and practices, insofar as these do not harm members of their
own group or other citizens. Of course what one means by “harm” will be a contentious matter.

Second, we must undo the secularism vs. religion binary as a universally defined one, and
as what one might well call a hostile one. (Jakobsen and Pellegrini 2008b make this point) Of
course many religions value that boundary within their own experiences and practices.\textsuperscript{19} The problem addressed in this paper is rather the tendency to hierarchalize and hegemonize (horrible neologisms) the conventional Western stance which travels around the world through globalization of political, economic, social, and cultural practices. As argued here, Western secularism can be regarded as Protestant (and was in fact co-constituted with capitalism’s market, as Weber pointed out).\textsuperscript{20} Moreover, secularisms are plural, like the religions, modernities, sciences and rationalities in the context of which they develop. Secularisms always develop \textit{within} their particular religious context. For such reasons, the dominant secular narrative of this binary is not helpful. Secularism turns out to be not necessarily more rational, more modern, more free, or less dangerous than the religions it seeks to control. (Taylor 2009)

Third, we should restate the goals of multicultural democratic states in ways that learn from these discussions. There are lots of possibilities here to explore.\textsuperscript{21}

Fourth, we should reconsider women’s complex relations to secularism and religion in the context of each of these projects. Starting off thinking of such issues from the standpoint of women is both necessary from a social justice perspective and in the service of maximally informed epistemological ideals and practices.

Finally and most importantly for the project of this paper, there are no good reasons to exclude IK from counting as “real science” on the grounds that they are always embedded in their cultures’ values, interests, and commitments, including religious and spiritual ones. This has been the main reason offered for not even bothering to examine whether IK provides

\textsuperscript{19} I thank Ann Garry for pointing this out to me.
\textsuperscript{20} Yet see contestations of this stance by several contributors to Levey and Modood (2009).
\textsuperscript{21} For example, Charles Taylor (2009) suggests a revised version of “liberty, equality, and fraternity” (with “solidarity” substituted for “fraternity”). Santos (2002) proposes repositioning the notion of human rights more effectively in the context of demands for social transformations for which revolution and socialism used to be thought the most desirable remedies. Maffie (2009) and Turnbull (2005) propose specifically philosophy of science solutions intended more appropriately to appreciate the value of IK. A comparative examination of these and other proposals is a project for another time.
empirically reliable knowledge of natural and social orders; that is, for dismissing IK out of hand. In fact I do not think there are any other good reasons for dismissing it, but that must be a topic for another time and place.

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