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AN INTERVIEW WITH DR. LAWRENCE BUSCH OF THE MICHIGAN STATE UNIVERSITY SCHOOL OF AGRIFOOD GOVERNANCE AND TECHNOSCIENCE

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Dr. Lawrence Busch is a University Distinguished Professor of Sociology at the Center for the Study of Standards in Society at Michigan State University. He is among the foremost sociologists of food and agriculture, having authored or coauthored 12 books and more than 75 articles. His research examines the intersection of politics, economics, and technoscience in food and agriculture, and possibilities for democratic politics. Dr. Busch granted Jason Konefal and Maki Hatanaka the privilege of interviewing him. The interview covers a broad range of topics, including the state of agricultural research today; possibilities for democracy and social change; the effects of neoliberalism; the crucial topics in food and agriculture today; and the future of rural sociology and higher education.

1. One area in which you have conducted significant research is the agricultural sciences and research. You have advocated the need for greater public input in agricultural research and more democratic practices. However, it seems agricultural research, generally, is heading in the opposite direction, namely increased privatization. Most notably, large biotechnology, life-science, and input companies are increasingly at the forefront of agricultural research. What do you think the implications of such developments will be for both agricultural research and agriculture in the future?

There are several major consequences of privatization. On the one hand, public sector research has shifted away from (generally long term) projects and programs that directly benefit farmers and others connected with agriculture, to research that yields products only of direct interest to the private sector. For example, most all of the genomic and genetic research currently underway at public universities – regardless of its goals – cannot be used until it is incorporated into varieties owned by a few large private corporations. On the other hand, those types of research that produce local ‘public goods’ have been poorly funded. Hence, little research addresses issues of agricultural ecology,
new crops, or improved farm field management. Together, they reduce options for farmers and everyone else in the chain all the way to final consumers.

2. Connected to questions on the agricultural sciences and research is the area of intellectual property rights. Generally, intellectual property rights have been evolving in ways that expand property rights and thus, remove knowledge from the public realm. What do you see as the implications of current intellectual property rights regimes on agricultural research and agriculture?

Proponents of the neoliberal agenda over the last 30 years have seen intellectual property rights (IPR) as a kind of panacea. Yet, IPR is a two-edged sword. Experiment stations have successfully used IPR to promote new varieties of minor crops. Indeed, without IPR, it is likely that many new varieties would never be marketed, as the profits would have been insufficient to compensate companies for the cost of seed multiplication. However, indiscriminate use of IPR poses several problems. First, IPR gives the owners of a single gene or gene construct control over an entire organism. This is as if a patent on a new muffler were to give Ford control over every other aspect of your car. Second, there is some evidence that patent holders are using their IPR to form cartel-like entities (Tansey, 2008). This works by agreement among holders of key patents to exchange patent rights within a small group and to block others from access. Finally, in some instances there is evidence of the creation of 'patent thickets' (Shapiro 2000) or ‘anticommons’ (Heller and Eisenberg 1998) where patents are used to slow progress and to create long-term oligopolies in particular industries. Together these changes turn the notion of knowledge as a freely available ‘contribution to the literature’ and to the public good upside down, leading to the privatization of what was once public knowledge.

3. In *The Eclipse of Morality*, you were quite pessimistic about the state of the world at the turn of the century. As we are now a decade into the new millennium, we would like to ask you whether your views have changed.

a. Have your views changed and, if yes, how?

What I did not expect was the rebirth of religious fundamentalism, especially as the events of September 11, 2001 unfolded. I had debated including something about religion in that book, but decided – clearly wrongly – not to
do so. In short, if I were to write the book now I would include four ‘isms’: statism, scientism, marketism, and religious fundamentalism. Each of these ‘isms’ force the world into a predetermined form, in a vain attempt to produce a neat, ordered, one-dimensional world.

b. What are the possibilities for a more equitable, just, sustainable, and safe world today?

I do not pretend to be able to predict the future. We live in a particularly dangerous time. The recent events in Tunisia and Egypt provide but two of many examples of this danger. As I write this it is unclear whether Egypt will reject the statism of Hosni Mubarak for some form of democracy, whether it will replace one ‘ism’ with another, or whether it will sink into chaos and even civil war. Perhaps Martin Heidegger (1977) was right when he noted that such moments of danger are also moments of promise. The challenge is to make the promise real.

This is difficult, but it is perhaps less difficult than it might appear. As numerous observers have noted, much of what we call society is performed (Bell 2006; Butler 1988; Callon 1998; Huizinga 1950; Mitchell 2008). Gender, the economy, war, and even revolution are performative acts that come into being only by virtue of at least tacit agreement as to their performance. As Foucault (2008:19) suggested, “…a particular regime of truth, and therefore not an error, makes something that does not exist able to become something. It is not illusion since it is precisely a set of practices, real practices, which established it and thus imperiously marked it out in reality.”

Put differently, the problems and promises of our contemporary world must be addressed not merely by new performances, but by reflexive, conscious, and deliberate actions taken in a performative manner. Learning how to do this is of the utmost urgency.

4. The central argument in The Eclipse of Morality is that moral responsibility has been largely removed from the people by what you call the three Leviathans: science, the state, and the market. Your proposed solution is greater democracy. Specifically, you propose the need for “networks of democracy.”
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a. Do you still think “networks of democracy” are the solution?

Most definitely. We cannot return to something like the citizen democracy of ancient Greece. But the representative democracy that we have inherited from the medieval European nobility is no longer sufficient for our needs. Many of the most important issues simply escape representative democracy. And, at least in the United States, the purchase of representatives by powerful corporations undermines even the limited democracy of representation. In contrast, networks of democracy offer an alternative, or perhaps complementary, approach.

b. A decade later, how do you evaluate progress in developing networks of democracy and democratization generally?

Progress has been slow, but there are certainly some reasons for hope. The formation of the World Social Forum is perhaps a step in the right direction. Similarly, the rise of La Via Campesina deserves mention as for the first time we have a worldwide peasant organization. What remains to be seen, however, is whether these and other similar organizations can institutionalize new forms of democratic governance. In addition, much more theoretical and practical work is needed around democratizing technologies, through the development of citizen networks focused on industrial design and standards formation.

5. Could you speak to the effects of neoliberal ideology and practices on democracy? In many ways, neoliberal practices are antithetical to democracy. Thus, in an era in which neoliberal ideology dominates political and economic discourse, and neoliberal practices are quite widespread, what have been the consequences for democratic politics?

I must begin by cautioning against the use of the term ‘ideology.’ While there are circumstances in which this term might be applied to neoliberalism, we must be careful not to reduce it to mere ideology. As Mirowski and Plehwe (2009) and their coauthors have persuasively argued, neoliberalism is best understood as a thought collective. That is, its proponents have spent much of the last half century arguing its fine points and building institutions that make its ‘truths’ real. It is precisely because they have not been all of one mind and
because they have worked hard to implement its theories, that neoliberalism cannot be reduced to mere ideology.

That said, there is great irony surrounding neoliberalism, since it has its roots in notions of liberty. It appears that neoliberals such as Friedman (1962) and Hayek (1973-1979) sincerely believed that the best defense against totalitarian regimes was to limit the powers of nation-states by subjecting them to the discipline of the market. Their followers in political theory and law and economics (Mercuro and Medema 2006) have had considerable success in arguing that politics and law are best understood and acted upon as markets. However, the ‘fatal conceit’ of neoliberalism is the notion that limiting the powers of government will promote liberty. In point of fact, limiting governmental power merely shifts governance elsewhere – to large corporations that begin to act like quasi-states (Busch Forthcoming), to international governance bodies such as the World Trade Organization, and to a lesser extent, to non-governmental organizations that take on the regulatory role previously reserved for states (e.g., the Forest Stewardship Council) (Cashore, Auld, and Newsom 2004). Moreover, these quasi-states often have local monopolies and lack the Montesquieuan separation of powers common to modern democracies. Much of the contemporary popular (and populist) frustration in Western democracies can be traced to neoliberal attempts to redesign nation-states.

In sum, the very successes of neoliberalism have simultaneously limited and undermined representative democratic governance, while transferring governing authority to corporations and NGOs that often lack both representativeness and legitimacy (Gereffi, Garcia-Johnson, and Sasser 2001).

6. A considerable area of your recent research has examined the shift from government toward governance in the regulation of food and agriculture. The literature on governance is somewhat divided as to the democratic possibilities of governance mechanisms, such as private standards, third-party certification, and accreditation. Might you comment on the ways that you see governance affecting democratic practices in food and agriculture?

I remain skeptical about these new governance mechanisms. They lack many of the characteristics that we take for granted in democracies. Often those who are subject to standards, certifications, or accreditations play little or no part in the development or enforcement of those procedures (Hatanaka 2010;
Loconto and Busch 2010). Moreover, appeals processes are often lacking or grossly inadequate. Sometimes, protection of some means neglect of others (Bain 2010). In some instances weak legal systems make it easy to purchase certifications without conforming to the rules.¹ And, even in nations where legal systems are relatively strong, certifications may be superficial if not deliberately fraudulent (e.g., Moss and Martin 2009). Finally, where certifications are effective, those who are to be certified or accredited often must conform on pain of seeing their means of subsistence evaporate.

That said, it would appear that such governance mechanisms could be designed to operate in a more democratic fashion. But doing so will almost undoubtedly involve nation-states more directly in oversight. To date, to my knowledge, this has not happened.

7. How do you see governance evolving in the future? For example, do you see consolidation among competing initiatives and/or the development of additional organizations or mechanisms for the coordination and regulation of multiple governance mechanisms?

Doubtless there will be some consolidation. But to the extent that corporations see standards as means of differentiating their products and processes from others, they will resist consolidation. What is more likely is that international coordinating bodies (e.g., the International Accreditation Forum) will grow in size and eventually become sufficiently large and visible that they become subject to greater international oversight. Already developing nations are complaining to the World Trade Organization about the growing role of private standards as technical barriers to trade. However, to date their concerns have fallen on deaf ears. Moreover, even were the industrial nations to listen, it is unclear what form that oversight might take.

8. With the shift toward governance, the role of the state in regulating food and agriculture has changed. What do you see as the future roles of the state in food and agriculture?

Despite the growth of non-state governance bodies, the state continues to play a central role. This is due in part to the failure of a few companies to play

¹ A colleague who shall remain nameless notes that in some nations ISO 9000 certifications may be purchased for $100.
States provide the necessary legal structure (e.g., criminal law, contract law, intellectual property law) without which non-state governance bodies would cease to exist. Indeed, in those nations where an adequate legal structure does not exist, certifications are relatively ineffective (Hoi, Mol, and Oosterveer 2009). In addition, in many cases the role of the state is actually being strengthened. Consider, for example, the new food safety law in the United States that strengthens the role of the federal government (though not necessarily in ways desired by everyone). Consider also the U.S. response to food safety problems emanating from China; FDA (Food and Drug Administration) offices were opened in China to inspect food before it is shipped to the United States. And, in the wake of the melamine scandal in China, that state instituted a major crackdown on unsafe products.

9. A recent focus in your research has been on the emergence of retailers as lead actors in food and agriculture and the implications this has had.

a. Do you see retailers maintaining their position as lead actors?

For the foreseeable future retailers will likely maintain their position as lead actors. One can see this in Wal-Mart’s recent decisions to become sensitive to environmental and nutritional concerns by reducing packaging and lowering the cost of fresh fruits and vegetables, respectively. Competitors will necessarily follow suit. However, retailers are themselves limited by: (a) the need to cooperate with competitors to dispose of unsold goods and to purchase out-of-stock goods (Raymond 2007), (b) the relatively slow growth they experience in mature markets (e.g., the U.S. suburbs), (c) the highly visible nature of food retailing, and (d) the need to respond to changing consumer demand (e.g., local food, organics). In the near future, higher fuel prices will likely affect retailers significantly by making driving to (especially suburban) stores more expensive, raising the costs of just-in-time delivery to the stores, and increasing the cost of heating and air conditioning huge hypermarkets (many of which were constructed with little thought for energy conservation).

b. What do you see as the next set of innovations and transformations to occur in food and agriculture?

We are already beginning to see the development of new retail stores in the ‘food deserts’ of our city centers. With suburban markets saturated, retailers
have decided to re-enter city centers. However, this requires that they rethink their entire supply chains. City center stores must be smaller, must have fewer items for sale given the high cost of space, and must cater to very diverse populations. Downtown Chicago provides a good example: Ten years ago there were virtually no food retailers there. Now, many major chains are active in the city center. But these stores often look quite different from those in the suburbs. They have narrower aisles, higher shelves, and fewer products. Moreover, their owners must decide if they will focus on a particular market segment (e.g., wealthy urbanites), or attempt to provide food for the full range of income and ethnic groups living in the city center. And, there are new competitors as pharmacy chains (e.g., Walgreens) now stock food items.

Moreover, the local food movement may well get a boost from the declining water supplies in California. For much of the last century, irrigated California agriculture has provided year-round fresh produce for most of the nation. However, California agriculture is based on subsidized, cheap, abundant water. The combination of increased urban demand, increased aridity as a consequence of climate change, and rising fuel prices are rapidly raising the cost of this type of irrigated farming. This may bode well for other regions of the nation. For example, Michigan could produce far more fruits and vegetables during the summer, and could produce significant winter produce as well in unheated greenhouses. (This is already done in Denmark, which has a similar climate.) The issue is not one of technical change as the technologies are already on the shelf. What will likely be required is rising consumer demand for local produce, willingness by retailers to source locally, and rising costs of produce grown in California.

10. For quite some time, there has been considerable debate as to the transformative possibilities of ‘alternative’ agrifood initiatives (e.g., fair trade, organics, community-supported agriculture, etc.). Could you comment on what you see as the future of such initiatives and their impacts on food and agriculture generally?

As many other observers have noted, everyone eats! Hence, making people aware of food is itself transformative. Whether the issue is nutritional value, obesity, food safety, local food, or the conditions under which producers struggle, these issues have the potential to create new solidarities. Moreover, large retailers themselves – always looking to distinguish their stores from
others – promote many of these trends. The large UK retailers, for example, have joined the popular concerns about fair trade, and now stock a wide range of fair trade products. One chain has shifted all of its banana purchases to fair trade.

But the real challenge still awaits a bit further down the road. It is hardly an exaggeration to argue that today much of the world runs on maize and soybeans. Pick up any canned or packaged food product and the chances are high that it contains (derivatives of) corn or soy or both. This is largely the result of subsidies in the United States and the European Union that perhaps made sense many years ago, but that make little or no sense today. Such subsidies go mainly to larger specialist producers encouraging increased farm size. They make it difficult or impossible for small farmers in poor nations to compete. They encourage soil erosion and pesticide overuse (which in turn becomes a major pollutant for our rivers). And, they discourage good nutrition by making packaged goods cheaper than fresh fruits and vegetables. Weaning American and European farmers off of these subsidies will be difficult and disruptive, but the longer we wait, the more difficult and disruptive it will be.

11. An area understudied by sociologists is the effect of financialization on society. In your keynote address to the European Society for Rural Sociology, you touched on financialization and its impacts on food and agriculture. Might you elaborate on what you see as the impacts of financialization on food and agriculture to date and in the future?

Financialization is not merely a problem for the food and agriculture sector, but a general problem for society. In the past, investment banks were mainly in the business of loaning money to build new businesses. Today, a very significant share of the banking business consists of various forms of speculation on agricultural and other commodities and currency markets. Unlike loans for production, speculation does not increase total wealth but rather redistributes it – mostly toward the top.

In recent years, in large part because more lucrative forms of speculation were closed with the near collapse of the financial system, speculation in agricultural commodities has risen. Moreover, legal frameworks have changed; whereas in the past only those who intended to take delivery could participate

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* For an excellent overview, see the recent film, King Corn (Woolf 2007).
in these markets, today anyone with sufficient funds can participate. It appears that one aspect of this has been to make agricultural commodity markets far more volatile than they have been in the past, as well as more vulnerable to short term disruptions due to floods or droughts. We have already seen food riots in numerous nations. If allowed to continue, such speculation could well bring down governments and lead to global chaos despite adequate food supplies. Yet, disturbingly, despite the financial crisis, the banks have to date been able to stave off significant reform. Put differently, they are setting themselves – and us – up for another crash.

12. Compared with other social scientists, sociologists are often fairly marginal with respect to political and policy influence. Do you think it is possible for sociologists simultaneously to maintain a critical stance and increase their influence in the political and policy realms? If yes, how so?

To answer this question, one must put it in perspective. Over the last thirty years neoliberals have done an extraordinary job of developing policy-oriented think tanks (e.g., the Heritage Foundation). Unconstrained by the niceties of peer review, they have been quite effective in putting their case before the public. At the same time, we academics have been caught up in an absurd game in which publication in technical journals has become the sine qua non of a successful academic career.

Furthermore, even as our critiques have often been incisive and on the mark, we (a) have not recognized that a critique must be delivered from somewhere (Boltanski and Thévenot [1991] 2006), (b) have failed to seriously tackle the construction of alternatives, and (c) have had little time for public intellectuals. I believe that we urgently need to consider alternatives to the existing order, developing a post-positivist sociology of performativity, of promise, of expectation, of experimentation, and of imaginaries, written for an educated lay audience and that engages the major political and social problems of our age. In particular, as I noted above, we need to help design new ways of performing society.

13. An important part of your work, and often one that is less known, has been applied work and participation in various agricultural initiatives, such as the Partnerships for Food Industry Development in Fruits and Vegetables.
sociologists who want to do more applied work and/or be more active in food and agriculture, is there any advice that you would offer?

Doing so-called applied work is often rewarding, as one learns through participation things that are invisible to one who merely observes. Indeed, although we had several mid- to late-career academics on our staff at the Partnerships project, we continually uncovered details known previously only to the participants. For example, after several false starts, we realized that the seemingly straightforward job of moving fresh products through ports rapidly was so complex that only experienced brokers could perform that task successfully.

But perhaps the most serious challenges to effective work of this sort are (a) the tendency to become buried in the endless details and often overwhelming reporting requirements, and (b) the shifting sands of development. Perhaps more than most government departments, development assistance or foreign aid is riddled with audits and reporting requirements. In addition to being time-consuming and expensive, such audits often detract from the very projects they are designed to audit. It is all too easy to work to the measure and to forget what the project was about. Furthermore, the entire aid establishment suffers from a continuously shifting frame of reference and a lack of institutional memory. Hence, what is considered central today is likely to be out of favor tomorrow.  

14. What do you think are the crucial topics in food and agriculture that young scholars should be examining today?

Although there are many topics of considerable importance, I would argue that it is those things summed up under the terms ‘food security’ and ‘food sovereignty’ that should be the focus of much future research. Understood broadly, these terms pose a series of research questions. Among them are: What are the medium and long-term implications of the current organization of food production, distribution, and consumption? What are the consequences of the growing competition for land for food and fiber production, fuel production, and non-farm uses? How does financialization affect food availability and access?

\footnote{Although some 30 years old, Hohen’s (1980) analysis of decision making in foreign assistance remains largely on the mark. More recent studies that make similar points include Goldman (2005) and Harper (2000).}
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What are the implications of large scale land purchases in poor nations? What portion of the population must be on the land to ensure food security? How much control can we allow a few corporations to have over the food supply? How can we ensure that everyone has access to a safe, secure, nutritionally adequate, and culturally appropriate food supply?

15. An area of interest that spans much of your career is higher education. It seems that higher education is in the midst of a significant transformation at this time. For example, in the United States, there is declining state financial support for public universities, greater emphasis on private funding and industry collaboration, and an increased focus on tangible outcomes (i.e., skilled workers and technologies). Can you comment on the transformations you see taking place in higher education, particularly public universities, and their implications for the future of higher education?

Indeed, higher education is in turmoil, although arguably more in the United Kingdom than in the United States. Much of this is attributable to the reigning neoliberal dogma that all decisions should be individualized, as each individual is (made) to be an entrepreneur of him or her self. If education is taken to mean preparation for a specific and narrowly defined job, then perhaps such a case might be made, although saddling recent graduates with huge debts hardly seems the best way to finance higher education. But if education is about self-realization, then it can never be left solely in the hands of those who are to be educated. Indeed, one of the best defenses for what used to be called ‘the liberal arts’ comes from a biochemist. Gregory A. Petsko (2010:2) argues poignantly that the liberal arts are needed precisely because, “The best way for people to be prepared for the inevitable shock of change is to be as broadly educated as possible, because today’s backwater is often tomorrow’s hot field.”

The situation with respect to research is similarly problematic. Our large research universities have built vast scientific infrastructures and have become heavily dependent on continuing government and corporate funding to keep these infrastructures running. Given the ever closer ties between universities and corporations, much of the research now undertaken is best understood as a taxpayer-funded subsidy to those corporations (Krimsky 2003). This is particularly the case for the pharmaceutical industry.

This puts the entire academic establishment at risk. The closer the ties with industry, the more university researchers begin to be seen by the public as
merely a part of the marketing wing of those industries. In medicine this has already led major journals to insist that authors have to reveal whether they have received funds from pharmaceutical companies. Unfortunately, in many other fields such as economics this is still not the case.

Moreover, universities have come to view government support for research as a kind of cargo cult, with each year bringing more research funds. Yet, as government funding expands, more universities previously marginal to the research enterprise are drawn toward research (Vest 2005). The result is that the pie is sliced into ever smaller pieces. At such time as research funding peaks and begins to decline, universities will be faced with a dual problem: faculty who are no longer able to compete for research funds, but whose research requires expensive facilities, and considerable investment in high-maintenance buildings that are designed specifically for research facilities and cannot be converted to other uses without considerable cost.

16. The future of rural sociology, both as an area of study and as a society, has been widely debated for quite sometime. Can you comment on what you see as the current state of rural sociology, as well as ways to increase the field’s vibrancy and meaningfulness?

We still cling to a division of knowledge that dates from the eighteenth century. In that division of knowledge, social scientists study the social while natural scientists study the natural. Furthermore, to caricature a bit, sociologists study “us” moderns while anthropologists study “those” traditionals.

In a technoscientific world, such a division of knowledge is both absurd and misleading. To put it differently, rural sociologists spent about a half-century studying the diffusion of agricultural innovations before beginning to take those innovations seriously as sociotechnical objects. And, this is not an issue solely for the sociology of agriculture. Rural life has changed markedly as, for example, the Sears and Wards catalogues were sent to millions of rural residents in the early twentieth century, as in the 1930s rural roads were paved and the pickup truck became a common rural technology, and more recently as internet access and cheap cellular telephones have been introduced. Each of these innovations have transformed rural life in surprising and not always predictable ways.

In recent years concerns about food have been growing as well. Some of these are production concerns, but much debate is about the distribution and
consumption of food. Food, too, consists of sociotechnical objects. Food is not undifferentiated fuel for human bodies (although it can be treated as such), but means by which cultural traditions are handed down and transformed. Rural sociologists need to address these changes, asking how families, communities, schools, and other institutions have been transformed (positively and negatively) by the restructuring of the food supply, as well as how they might be transformed by proposed changes now being discussed.

Making sense out of these many sociotechnical transformations requires that the old division of knowledge be abandoned and that we forge links with natural scientists and engineers, as well as with those in other social science disciplines. If we do not do that, rural sociology itself shall surely go the way of the horse and buggy.

AUTHOR BIOGRAPHIES

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REFERENCES


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