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# Working for Them: Essays in Honor of Diana Forsythe Guest Editors: Linda Hogle and Gary Downey

#### Introduction

Linda Hogle, Stanford University Gary Downey, Virginia Tech

Anthropologists of science, technology and work often have subjects who are also colleagues or employers, or who may exert some control over the process and products of their work. How do these conditions constrain what researchers can study and write, and what are the implications for an ethnography that can be both critical and respectful of our subjects? Ethnographers have tended to ally themselves with the subordinate, the hidden, the neglected. Ethnography, after all, is a good way to make visible meanings and experiences that do not fit dominant cultural beliefs, images, or representations. Thus, ethnography gives itself the problem of critical participation through its very presence in research relationships.

The existing narrative of activism requires us to identify and adopt a position to defend and then challenge the dominant perspective by confronting the people in power. Emerging work suggests there are many pathways for participatory ethnography, each with a distinctive set of conceptual and methodological issues for the ethnography, as well as identity issues for the ethnographer. The pathway one chooses to intervening in dominant meanings depends, in part, upon one's theoretical perspective and methodological choices. But it also depends critically upon one's identity as a person *in relation to* the people who are living and working according to the meanings one may be challenging. Are you an outsider stopping by? Do you have credentials that position you as a member or insider? Are you a member of an elite group yourself? Have you accepted training to join? What commitments have you made to the group you are studying? Are they short or long term, and how might this change over time?

This issue explores one pathway—that of entering the field site by becoming an employee. What happens when I work for them? Clearly, my identity becomes more complicated, and older notions of ethnographic authority change when I am accountable to informants who employ me. But what about the identity of my informants, now that they have me as both an ethnographer and a coworker in their lives?

Diana Forsythe worked for them. She struggled with the problematics of contemporary critical ethnography and issues of power and knowledge in a key essay, "The Ethics and Politics of Studying Up," written shortly before her untimely death in 1997. The authors in this issue honor Diana's important contributions to anthropology by extending the discussion her paper began. The theme was originally presented at the session "Ethics and Politics in the Anthropological Study of Science, Technology and Work: Papers in Memory of Diana Forsythe" at the 1998 meeting of the American Anthropological Association, ably organized by Chris Toumey. Participants included Lucy Suchman, Jennifer Croissant, John Sherry, David Hess, Ron Eglash, Chris Toumey, Gary Downey, and Linda Hogle. The lively discussion that followed indicated that a number of anthropologists shared similar dilemmas and frustrations. This is particularly true as the Anthropology of Science, Technology and Medicine continues to grow as an area of study within the discipline.

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All articles, review essays, and letters to the editor should

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Diana was actively involved in the formation of this field of study very early on, and she was a central figure in bringing together anthropologists of work, science and technology into a more coherent group. She served in leadership capacities for the Society for the Anthropology of Work, and eventually the Committee of the Anthropology of Science, Technology and Computing (CASTAC) became institutionally located within the General Anthropology Division of the American Anthropological Association, with the commitment of Diana and others like her. These organizations serve as important forums for anthropologists who struggle with negotiating our own professional identities when we are in roles differently involved with research subjects than the old narrative suggests. We invite readers to consider the challenges raised in this issue as opportunities to move creatively toward new forms of critical ethnography and narratives that make a difference without having to choose between entrenched opposition and co-optation.



Diana Forsythe and Bern Shen (from the collection of Bern Shen)

## Diana Forsythe's Pathway: Confronting Dominant Images

Diana worked in artificial intelligence (AI) environments, analyzing information-related problems in real-world work processes, assessing users' information needs and participating in designing solutions for such problems. She wrote eloquently about the interactions between decision tools, which may transform work, and the way people work, which may transform the tools or the way these were intended to be used. But to do this necessitated doing ethnography in Al design settings, where the informants had a great deal of power, and where the researcher had to make choices about her positionality.

In such settings, the credibility of anthropologists may rely greatly on how much and what sorts of technical knowledge they have about the field. A disjuncture of knowledge and experience may marginalize the anthropologist from organizational activities and power structures. But credibility may also depend on the value of his or her own area of expertise. Social science contributions may be accepted as helpful to the organization's goals of producing products, yet they are often located in a supplemental role and, worse, can be used against the best interests of another other set of informants, the potential consumers of those products.

Diana's challenge was to develop ideas about critical participation—a matter of central concern to anthropologists of work. Her paper, "The Ethics and Politics of Studying Up," was a reflection on the multiple roles and responsibilities of being a participant observer in a setting where her research subjects were her colleagues, her employers, and those who had the authority to evaluate and perhaps restrict what she might say and to whom, what areas she might or might not explore, and how she handled her findings. Here, she expresses her feelings of frustration, conflict and

challenge. She makes explicit the feelings of vulnerability that come from feeling simultaneously marginal to and complicit with practices of power.

Diana received a bachelor's degree in anthropology and sociology from Swarthmore College and her doctorate in cultural anthropology and social demography from Cornell University in 1974. Her intellectual interests ranged broadly across issues of central concern to anthropology, including national identity and migration in Europe, and urban-rural cultural transformations in Scotland and Germany.

A turning point in her career came with her return to the United States in 1985. Diana's father was the founding chair of the computer science department at Stanford University, and her mother was a significant contributor to computer science education. A visit to the lab of a researcher who had known her father convinced her that the rapidly changing field of artificial intelligence was an ideal site in which to explore the relations of knowledge, practice and emerging technologies. She trained in artificial intelligence, completing a postdoctoral program at Stanford in 1988.

From there Diana took a position as research scientist in the Department of Computer Science at the University of Pittsburgh and was promoted to research associate professor in 1992. During the same time, she became an associate of the Center for Medical Ethics and a fellow of the Center for Philosophy of Science. She returned to Stanford as a visiting scholar in the Program in Science, Technology and Society.

It was during these years that the groundwork was laid for her important contributions in knowledge engineering and medical informatics. She conducted ethnographic work in knowledge-based systems labs in industry and academia, including consulting for Hewlett-Packard, Philips, and numerous MIS projects at several universities and Al laboratories. Her research on medical applications of Al was supported by the National Library of Medicine. Through work spanning eight years, she developed an intimate knowledge of the culture of artificial intelligence communities, elucidated "problems" in human-technology interactions, and examined what constitutes "work" in artificial intelligence, particularly as it intersects with medical "work" and knowledge.

She was successful over time in getting Al professionals to listen. Yet ironically, this had the unintended effect that eventually led to Al researchers attempting to co-opt her work and colonize ethnographic methods. As a result, she constantly had to reestablish her authority, justify her role and contributions to the organization by demonstrating her expertise, and yet negotiate a relationship with these people who were, after all, her informants. Maintaining autonomy and integrity as a critical ethnographer became difficult when employers tried to control her work products, her analyses and writings. There were other conflicts as well that formed a part of her everyday life working for these organizations. She had, for example, to compete for work space and resources.

Diana embraced the challenges of being actively engaged in the world. She had the tenacity to take on research that was demanding and often frustrating, and the courage to pursue questions and topics that she found intellectually stimulating and knew to be important to understanding the nature of work and knowledge. Some observers might comment that these choices cost her dearly in terms of rewards and opportunities, but her work contributed greatly to discussions of theory and methods, and her insights have benefited a generation of researchers both in anthropology and artificial intelligence.

### Identity and Positionality: Theirs and Ours

As was the case with Diana, the identities and experiences of authors in this issue influence the ways they approach their respective field sites and topics, and shape their interactions with informants. Engaged with informants in ways that contrast with older, more traditional relationships with research subjects, their contributions express and exemplify the problems and poetics of participatory ethnography.

Lucy Suchman's article elaborates Diana's thoughts on critical ethnography in settings where anthropologists are both marginal and privileged. It is Suchman who alerts us that while the dilemmas of the fieldwork narrative for anthropologists of science, technology and work contrast with traditional narratives and power relations, these experiences are shared by other anthropologists as well. The dilemmas are similar to those faced by ethnographers undertaking the multiple kinds of migrations and boundary crossings that dissolve borders between "us" and "them," "insider" and "outsider."

Suchman articulates her anthropological mission as involving "a view of critique not as ridicule but as a questioning of basic assumptions, and of practice not as transcendent but as deeply implicated." She notes the possibility that the identities of our informants may change as we enable them to critically assess their own assumptions. Positioned in this way, her goal is to make visible and facilitate indigenous dissent.

However, this pathway has its difficulties for the ethnographer. It may become difficult to maintain separate identities—both for them and for us—and there may be profound feelings of alienation. Suchman herself existed in an authoritative space, and yet reports she often felt very much apart. Nonetheless, she focuses on the opportunities of participation; to make a difference by building indigenous anthropologists. Celebrating the example of computer scientist Phil Agre, she writes, "What I'm proposing is that respectful critique requires the incorporation of critical reflection as an indigenous aspect of professional practice. The hope is that the more critical reflection becomes central to disciplinary practice, the less adequate the categories insider/outsider become...."

John Sherry points out that the new narrative Forsythe presents can be seen as multiple narratives. John's ethnography benefits both design teams tasked with improving products and potential end-users who want effective computer products. He works in a situation where ethnography is valued as a means for building users into design processes, part of a national movement called "concurrent engineering." 1

How does one turn the discovery of meaning and experiences that are hidden into the design of products that many people will want to buy? On the one hand, Sherry's "tribe" is a number and variety of customers. On the other hand, his job involves helping "them"—engineers and marketers—to aggregate anonymous customers into groups of people positioned in society in distinct ways, with needs that new computer technologies might fulfill. His goal is "to be an advocate for the interests of real people, the potential technology consumers, and to be honest about the potential effects, both positive and negative, that new technologies may bring" to deliver "true end user value."

To gain an authoritative role in his own work, he has to identify pathways through which his way of thinking can participate in their way of thinking. He focuses on knowledge production and presentation. For example, his group's most successful innovation has been the "concept demo" that goes beyond the idea of "work models" in "contextual design" by capturing a particular "user experience." These help designers see real users positioned within the mass of potential customers. The dangers here are the potential for social engineering on the one hand and co-optation on the other

Like Suchman, he agrees that others in the organization should be trained in ethnography. However, in doing so he faces a situation in which natives claim to be doing ethnography and then do it badly. This places him in the position of policing ethnography in his institution, yet not always with the authority to carry this out. Furthermore, the practice of training native ethnographers also raises the issue of disciplinary boundary-work. How does one manage a professional boundary when sharing specialized expertise and leading others across the boundary into our discipline threatens to undermine its legitimacy—or does it?

Turning to academia as a site in which power and knowledge relations sometimes clash, Jennifer Croissant's article examines what critical participation might look like in the classroom. She demonstrates ways in which dimensions of the anthropologist's identity-including training, technical knowledge, experience, gender, age, personal style and position-shape the ways she may or may not be able to intervene among technoscientific elites. There is a paradox of authority and identity. On the one hand, one may be in a position of authority and have a certain amount of power over students, which could be likened to older notions of ethnographic authority and epistemological privilege. Yet there may be de-legitimating factors, such as having the identity and toolkit of a social scientist rather than scientist in a technical field, leaving one in the position of having to "demonstrate your usefulness."

How does one maintain pedagogical authority and be accountable to one's employer without risking a denial of self? What happens when you disagree? Is it possible to resist the party line when you are positioned as its pedagogical voice? As a teacher and a scholar who practices critique can you ethically introduce a view that is contrary to core

curriculum teaching or provide illustrations of the dilemmas of work in engineering and other technical fields? One strategy to deal with both identity and accountability, Croissant suggests, is humor, which functions as acceptable participation by inverting established hierarchy and finding a common ground. At the same time, it can be an effective way to make the point that there are other ways of viewing social and political meanings and implications of technology.

David Hess returns us to Suchman's initial point. The concerns outlined in this special issue apply to anthropologists generally, wherever we work, because we all work for them. Revenue-based budgeting and other dramatic changes in universities have blurred the distinction between the academy and business. Extending Forsythe's insights on the changing relations of ethnography in technical and industrial settings, Hess notes parallels in the commodification of the curriculum. In both cases, anthropologists are called to be more accountable for their methods and their products. Anthropologists competing for funding, research, and teaching resources must often justify their work more in environments that value vocationally-oriented training and concrete products that compete in the market, whether these are educational, engineering, technical or information products. While this shift improves responsiveness to our informants and audiences-the very thing we have been using a great deal of paper to promulgate-this means more intense evaluation, usually performed by parties with different disciplinary understandings and priorities. It can also mean constraints upon or even censorship of the kinds of questions we ask, the topics we choose, and the findings we publish. Hess highlights the process through which transformations in the academy threaten autonomy of individual faculty and departments by challenging and shifting ownership of intellectual property.

Hess ends on a pessimistic note, characterizing the sensation as a "tightening of the corporate noose." He makes a persuasive case but, as ethnographers, might we be able to make visible other experiences? If a cultural boundary between the private sector and the academy does continue to be reproduced, might such indicate that the image of total transformation hides much of what is currently taking place in the academy? Might ethnographers be able to help here by making visible meanings that have been hidden and then participate critically in relocating the meaning of economic competitiveness from a necessary belief or dominant image to one alternative competing for influence among many? In other words, might not the work of people such as Diana Forsythe and contributors to this volume, including David Hess, provide a model that offers not only hope but also a model of work?

Under conditions of the global flow of information, goods and people, the blurring of roles and identities, and the expansion of capitalist forms and institutions which are prominent features of the late twentieth century, we must rethink our relations with and narratives of our subjects and selves. And so we return to Diana's conundrum: how do we

make an anthropology of science, technology and work that is both critical and respectful, cooperative and yet free to express dissent, responsive and empathetic yet maintaining fidelity to intellectual and methodological groundings? The articles in this issue open a space for discussion, exchange, and further exploration of critical participation that will constitute a key dimension of ethnography as it continues to evolve.

#### Acknowledgment

We are grateful to Bern Shen, Diana's husband, for permission to reproduce the paper here.

#### Note

1. This is an extension of "Total Quality Management" (TQM) which reimagined the bureaucratic corporate structure as a set of organizations clustered around production processes—the whole corporation is built around its production processes. TQM first made customers visible in design and manufacturing processes.

# Selected Bibliographic References for Diana Forsythe

Aydin, C.E. and D.E. Fosythe. 1997. Implementing Computers in Ambulatory Care: Implications of Physician Practice Patterns for System Design. Proceedings AMIA Fall Symposium pp. 677-81.

Forsythe, D.E. 1998. Using Ethnography to Investigate Life Scientists' Information Needs. Bulletin of the Medical Library Association 86(3): 402-409.

Forsythe, D.E. 1996. New Bottles, Old Wine: Hidden Cultural Assumptions in a Computerized Explanation System for Migraine Sufferers. *Medical Anthropology Quarterly* 10(4): 551-574.

Forsythe, D.E. 1995. Using Ethnography in the Design of an Explanation System. Expert Systems with Applications 8(4): 403-417.

Forsythe D.E. 1994. STS (Re)constructs Anthropology. Social Studies of Science 24(1): 113-123.

Forsythe, D.E. 1993. The Construction of Work in Artificial Intelligence. *Science, Technology and Human Values* 18(4): 460-479.

Forsythe, D.E. 1992. Blaming the User in Medical Informatics: the Cultural Nature of Scientific Practice. Knowledge and Society 9: 95-111.

Osheroff, J.A., D. Forsythe, B.G. Buchanan, R.A. Bankowitz, B.H. Blumenfeld and R.A. Miller. 1991. Physicians' Information Needs: Analysis of Clinical Questions Posed During Clinical Teaching. *Annals of Internal Medicine* 14(7): 576-581.

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