

Media of Cooperation: Ethnomethodology, GPS, and Tacit Knowledge

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I was hosted at DFG Collaborative Research Center “Media of Cooperation” in Siegen in June 2016, supported by the Mercator Fellowship. At the start of my visit, I attended the International Conference on Digital Practices: Situating People, Things and Data (7–9 June 2016), which was organized by the DFG Research Training Group “Locating Media,” in collaboration with the Research Center.

During the next two weeks, I participated in numerous seminars, consultations, and discussions with research groups, faculty members, and post-graduate students. All of these meetings were very stimulating, and I learned a lot from them. It is difficult to give a concise summary of all of these activities and discussions, but many of them involved the topic of how embodied practices in concrete social environments relate to instructional devices and representations of the relevant practices. The discussions and activities including the following:

- Andrea Ploder interviewed me as part of her project on the history of ethnomethodology. I was a student of Harold Garfinkel, the founder of the field, and we focused on my relationship to him and other key figures, and on the trajectory of my own work as I became associated with the field of Science & Technology Studies (STS).
- I also met with Christian Erbacher on two occasions to discuss his project on the editing of Wittgenstein’s Nachlass, focusing especially on the correspondence of G.H. von Wright. This fascinating study examines the relatively invisible work of Wittgenstein’s editors to turn

the large collection of his posthumous writings into published philosophical works. In our discussions we also discussed my own interest in Garfinkel's posthumous writings, which connects with ongoing efforts at Siegen to help organize the Garfinkel archive.

- In connection with the Garfinkel archive, I had discussions with Tristan Thielmann and others about efforts to organize and digitize the large collection of Garfinkel's manuscripts, recorded conversations, and recorded lectures.
- In addition to the focus on Garfinkel's work, I met with some of the Research Group's individual projects. One was with Cornelius Schubert, Andreas Kolb, Judith Willkomm, and Julia Kurz, who are a team of sociologists and information scientists investigating the design of an augmented reality application by exploring new visual modes for organizing clinical cooperation on a neurosurgical ward. The second was with Jutta Wiesemann, Clemens Eisenmann, Bina Mohn, Inka Fürtig, and Jochen Lange, who are a research group conducting an ethnomethodological project on the use of smart phones in early childhood. The project not only records the interactions of children with smartphone devices, but also analyzes the recorded pictures from the smart phones to gain insight into the users' perspectives.
- I also attended two seminars organized around critical theoretical papers I had published on the themes of "reflexivity" and "the turn to ontology" in sociology and STS. These meetings were attended by a group of scholars from the Reserach Center and the University of Siegen, including principal investigators, post-docs as well as phd and graduate students.
- More informally, I met with Clemens Eisenmann for a very illuminating discussion of his ethnomethodological research on the embodied practices of yoga and tai chi, and my reflections as a novice-practitioner of the latter.
- Finally, I enjoyed an outing to a nearby nature preserve with Judith Willkomm and Asher Boersma, in which we discussed Judith's re-

search on field ornithology. Years ago, I had written on the uses of field guides by amateur bird watchers.

These consultations, seminar discussions, and informal meetings were informed by my background and continuing interests in ethnomethodology and Science & Technology Studies (STS), and I was pleased to see that both areas (often in unique combination) are very well represented in Siegen.

Ethnomethodology is a field that was founded more than a half-century ago by Harold Garfinkel (1917–2011). I completed my PhD dissertation under Garfinkel’s supervision in the 1970s, and also worked with him as a postdoctoral fellow in the early 1980s. Much of the research in ethnomethodology is concerned with the social organization of “ordinary” embodied actions and social interaction performed in day-to-day life. Such activities include face-to-face conversation, as well as mediated exchanges over telephone and other kinds of communication and information technology. My own interests, going back to my PhD research on the day to day practices in a neurosciences laboratory, focus on the ordinary underpinnings of specialized practices in legal and scientific settings. I am especially interested in the production of evidence, such as testimony in courtroom interrogation, and graphic displays of neuro-anatomical data in a research laboratory.

Now that ethnomethodology has a history that spans more than a half-century, I also am involved in efforts to document and make sense of that (often contentious) history. As noted above, I met with Tristan Thielmann to discuss efforts that he, Anne Rawls of Bentley College, and others have made to organize a massive collection of papers, tape recordings and material devices that are stored in the Boston area, and are currently being assembled into the Garfinkel archive. He and I discussed ideas for helping with the organization of that archive, and the dissemination of materials and research in connection with it. Several months following my visit to Siegen, I traveled to Boston and met with Prof. Rawls, and

we went through a small portion of the materials of interest to me. Currently, I am interested in putting together a volume of his writings on the work of the natural sciences, written in the 1970s and 1980s. I'm also interested in the collaboration between Garfinkel and Sacks in the late 1960s, which culminated in a co-authored paper published in 1970. What interests me about the collaboration is that in the decades since then Conversation Analysis and ethnomethodology have largely gone in different directions, and I believe there is potential to recover and develop common ground between them.

Many of my discussions with PhD students, faculty and postdoctoral researchers at Siegen concerned the theme of “instructed actions”: the practices of conducting actions that are presented (often in idealized form) in instructional materials. The paper I presented at the International Conference on Digital Practices on 8 June was on that topic. The paper was based on a project conducted with three PhD student at Cornell, which will be published in the forthcoming *Digital STS Handbook*. Our study is on the uses and practical problems of navigating with handheld and windscreen mounted GPS devices. Previous ethnomethodological studies by George Psathas, Harold Garfinkel, Kenneth Liberman, Eric Laurier and others examined how persons read maps and follow directions in relation while navigating through familiar and unfamiliar terrain. Consistent with these earlier studies, we pay attention to practical “troubles” that reveal systematic problems and require improvised repairs for coordinating the formal instructions with specific journeys. With static maps, and even with maps sketched for a particular journey, the instructions do not adapt dynamically with the movements of the user, and it often turns out to be difficult in the course of a journey to find where one is “on” the map (assuming that one has not wandered out of the territory covered by the map. The GPS solves many of these problems, with its repositioning and adaptation of directions to the current position of the user, but we also experienced distinctive troubles with using it, as well as variants of trouble that occur with older forms of map and

instruction. Despite the apparent verisimilitude of the GPS scenic display and the experience of journeying, confusing gaps remain between the small screen display and the immediate environment. Such gaps were most strikingly evident when using GPS to navigate through environments that lacked the material “discipline” of a modern cityscape: where roadways were not clearly bounded or intersections signed, and where pedestrians and stray dogs wandered freely in and out of roadways. We also used GPS to navigate through familiar routes, in order to detect incongruities between its directions and our usual routes. When GPS led us astray, either or both through our incompetent use of it or malfunctions in its operations, we often used back-up strategies to repair the disrupted routes: asking passers-by for directions, reading the landscape for clues, and deploying older forms of map. This study certainly seemed to be congruent with the overall themes of “Media of Cooperation” and “Locating Media”, as it literally involved close attention to the use of GPS devices in the actions of a journey.

The study also bears upon the topic of “tacit knowledge” and its relationship to technology. Michael Polanyi originally developed the theme as a way to address skills and practices that underlie, and perhaps even contradict, the accomplishment of scientific methods but are not mentioned in formal descriptions of methodological procedure. Harry Collins developed the theme more recently in STS. Of course, it applies to all manner of practices. In connection with the GPS study, I am interested in how the domain of tacit knowledge shifts with innovations in the technical means of instruction. Much of the work on tacit knowledge points to a gap between written instructions (whether in the form of a methods protocol, or a more commonplace form of recipe) and the situated practice of following the instructions. However, with the advent of video instructions that show and instruct a developing task, and interactive media that enable real-time consultation, it might seem that tacit knowledge becomes constricted to a vanishing point. Certainly, that balance between tacit and explicit shifts, though from the GPS study and other examples,

I believe that it is more of a reconfiguration than an erasure. Moreover, the very concept of tacit knowledge begins to seem undifferentiated and perhaps not very helpful anymore.

My discussions with others at Siegen often delved into the practices, practical difficulties, and unanticipated contingencies that arise in the course of attempting to teach and master an embodied practice (whether in a science such as ornithology, a literary art, or an embodied regimen such as yoga). Overall, I benefitted greatly from exposure to the interesting projects being conducted at Siegen, and the innovative ideas associated with them.