Building bridges: About the Reflection Work and Consequences of STS Method Practices in Three Current Publications

Meier zu Verl Christian (2018) Daten-Karrieren und epistemische Materialität: Eine wissenschaftssoziologische Studie zur methodologischen Praxis der Ethnografie. Stuttgart: J.B. Metzler. 288 pages. ISBN: 978-3-476-04603-1

Estalella A and Criado TS (eds) (2018) Experimental Collaborations: Ethnography through Fieldwork Devices. Easa Series. New York: Berghahn Books. 236 pages. ISBN: 978-1-78533-853-3

Wiedmann A, Wagenknecht K, Goll P and Wagenknecht A (eds) (2020) Wie forschen mit den ‚Science and Technology Studies'? Interdisziplinäre Perspektiven. Bielefeld: transcript. 326 pages. ISBN: 978-3-8376-4379-4

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Abstract

This review discusses three recent book publications devoted to a detailed description and reflection of methodology. These are three different contributions that focus on different disciplinary approaches to STS methods: sociology (via Meier zu Verl's monograph "Daten-Karrieren und epistemische Materialität" [Data Careers and Epistemic Materiality]), cultural anthropology (represented by Estalella's and Criado's edited volume "Experimental Collaborations") and, across these discussions, an interdisciplinary lens (brought in by Wiedmann et al.'s "Wie forschen mit den 'Science and Technology Studies'?" [How to do research with 'Science and Technology Studies'?]). Based on these publications, a transformation of STS method reflection can be traced. We have now arrived at the gratifying state that the methods literature aims to build bridges to mediate between methodological ideals on the one hand and research realities on the other. At the same time, the field creatively reflects on the diverse effects of STS method practices.

Introduction

How can publications be put to work, and what kind of work is required to achieve compelling scholarship? One of the critical suggestions from professional book editors such as William Germano (2013) is that a publication should not block its success with methods discussions, especially when lengthy literature reviews are in play. Scholars of Science and Technology Studies (STS), however, have a distinctive position in this.

The present special issue puts to the practice an extreme variant of the "methods chapter", one could argue: a systematic description and analysis of STS method practices. The issue works in tandem with an emerging trend in STS represented by related publications (e.g., Deville et al., 2016; Law and Ruppert, 2013; Lippert and Mewes, 2021) and a generally increased desire and convic-

tion to be aware of the use and effects of methodological work (cf. the reviews: Alberti, 2016, Algarra, 2019, Brown, 2016).

With this review essay, I engage with three recent publications, in which methodological work is reflected and performed: Meier zu Verl's monograph *Daten-Karrieren und epistemische Materialität* [Data Careers and Epistemic Materiality] (Meier zu Verl, 2018), Estalella's and Criado's edited volume *Experimental Collaborations* (Estalella and Criado, 2018), and Wiedmann et al.'s edited volume *Wie forschen mit den 'Science and Technology Studies'*? [How to do research with 'Science and Technology Studies'?] (Wiedmann et al., 2020) These three contributions focus on different disciplinary approaches to and translations of STS literature: sociology, cultural anthropology and, across these, an interdisciplinary lens. What constellations do the texts put readers in? And what can be learned from the discussions about the development of STS?

I begin with a brief introduction of the three books in question, carving out their innovative lens. Then I will argue that the authors set up constellations that help stabilise bridges between methodological expectations and lived challenges, yet they engage in diverse forms of bridge-building.

Qualitative social science research in introspection

Meier zu Verl has filled a research gap with his publication (a dissertation thesis) that was apparent since the science studies literature emerged. The author's monograph *Data Careers and Epistemic Materiality* provides detailed observation, analysis, and reflection of a qualitative research team's research practices. Drawing on ethnomethodology with a sensitivity for STS approaches, he traces the emergence of ethnographic data. Meier zu Verl's study lays out the flow of materials and the necessary work during the "career" of data. The observation reminds me of science studies publications in so as far the career metaphor fits well, for example, with Latour's pertinent concept of 'circulating reference' (Latour, 1999). However, Meier zu Verl emphasises the peculiarities of qualitative social science research endeavours, the situated and embodied practices at the heart of an ethnographic research project. Following the analysis is demanding though as the reader is forced to think across meta-levels while Meier zu Verl reflects on the reflection.

The study examines the exploration of everyday life in educational institutions (for details on this, check Sormani's (2020) review of the book). The collective dimension of the project under investigation stands out, even if it is not explored in detail (cf. Meinhoff's (2019) review). Of particular value is Meier zu Verl's classification of data in transition, "provisionally" being selected by ethnographers. It is about data that are assumed to be relevant – in short, "proto-data". According to the author, convincing analyses depend on marking and translation field site experiences; on selecting, breaking, testing, preparing, polishing and then stabilising such proto-data. Closure procedures following from the stabilisation work are contingent. But justification practices are elaborate and matters of scrutiny. Many exciting things are going on here. It is somewhat surprising, for example, that occasionally positivist, quasi-naturalist understandings of ethnographic data help produce persuasive arguments. Yet, Meier zu Verl's conclusion goes beyond such sociological interpretations insofar as general challenges for quality criteria, basics of data reflection and normative registers of social science are derived.

Meier zu Verl mediates elegantly between expectation and realisation. The author spells out the work done by researchers to "bridge the gap between methodologically formulated criterion and lived methodological practice […] in a practical way" (Meier zu Verl, 2018: 264; translation by SL). His achievement is to make this work tangible.

Experimental Collaborations, edited by Estalella and Sánchez Criado, is dedicated to the collective dimension of research and can be read in relation to Meier zu Verl, where this aspect remains rather implicit. Due to its location in anthropology, and the discipline's long history of controversial reflection, in contrast, the volume is more open and direct in its engagement with research partners. In 8 chapters, plus the foreword by Marcus, the editors' introduction and the afterword by Pink, the volume's authors develop conceptual themes in close interaction with thick empirical material.

They normalise collaboration as a fundamental mode of ethnographic research, with the key contribution to put experimental approaches at the centre of the discussion.

The volume proposes devices for attuning researchers to field sites, moving in and with them, or making sense of specific encounters after the fact. For example, the introduction explicitly proposes the term "fieldwork device" as a strategic influence on research; Garnet's chapter on air pollution data explores the performance of inter-disciplinary forms of meeting and co-laborating while reflecting on the precarious achievement an interdisciplinary group is; Ramella's contribution follows a music band and shows how the mobility of a tour bus shapes the actors and her position in a multi-layered way; Kasatkina et al. posit the materiality of transcripts, using the example of the ethos of a local Soviet scientific elite, hence exploring the troubling responses of interview interlocutors in the process of transcript authori-sation. The potential shape of fieldwork devices is difficult to convey in a purely conceptual or textbook format – this volume uses powerful examples to help readers out. Consider Schiller's chapter about a traineeship where she was able to work in three different municipal organisations and at the same time had to adjust to actors, affor-dances and cooperation in three different ways. What follows from this case is a valuable differen-tiation of the concept of "para-site" (Holmes and Marcus, 2008), which is important for the entire volume.

In sum, this edited volume lets me, as a reader, focus on both deeply practical and care-fully designed settings. The humanity of ethnographic research projects emerges, with its "meth-odological anxieties" and the often required "creative inventiveness emanating from fieldwork practices," as Criado and Estalello put it (2018: 1).

How to do research with 'Science and Tech-nology Studies', an edited volume by Wiedmann, Wagenknecht, Goll and Wagenknecht, sets out to overcome latent prejudices, especially in the German-speaking context, about the methodo-logical inadequacy of STS methods. Like the other two publications discussed above, the volume is sensitive to STS studies' distinctive theoretical explorations. The editors decided to consistently put 'STS' in quotation marks, honouring the field's diversity. Indeed, a variety of disciplines, and German as well as English contributions, feature in this volume. The book is at the same time unrav-elling the effects of STS methodological practices (see the afterword by Lippert). It focuses on STS research practices and how selected research projects juggle the routines, oddities, hurdles, and scholars' research aspirations. In this sense, the book's title carries a double meaning as well (which my translation into English does not convey), since "forschen mit den 'STS'" implies being in the field *amidst* STS method devices.

Like Meier zu Verl (having his own contribu-tion in this volume), who uses the notion of data careers, Wiedmann et al. mobilise a procedural understanding of research to make relations tangible. Nine research contributions, plus the introduction and afterword, are included in this book. The volume succeeds in breaking down the already familiar formulation that STS meth-odology is above all an "attitude" characterised by sensitivity and a close engagement with actors. In her chapter contribution, Astrid Wiedmann follows and deciphers the im/possibility of the infamous ANT maxim of "following the actors" while illustrating how she enacted her perma-culture research site; Marguin, Rabe and Schmid-gall develop hybrid methods to acknowledge the production of knowledge in spatial arrange-ments, which invokes registers of design science; Kocksch's chapter looks at the role of emergency exercises at an energy company's IT depart-ment and addresses the part of an ethnogra-pher involved in such a process, which exposes potential turning points in STS's positioning in an emerging research field; and, to pick a final example, Boersma and Willkomm ask how – in the course of negotiating a workshop format via e-mail – STS concepts are used to justify proceed-ings (spoiler alert: this text reveals the power of STS staples like "black box" to establish authority).

The contributions speak to specific audiences and help organise and align research practices. They provide hints on how to move in and through field sites comfortably. The editors sum it up beau-tifully while considering a crucial fieldwork device of an ethnographer: "The maxims for action are not thickly printed prompts in field diaries. They

are reminders drawn in thin pencil for one's own research, which require a permanent adaptation to the field, a forgetting and re-remembering, an insertion of the maxims in the field and an indispensable observation of their actions." (Wiedmann et al., 2020: 21; translation SL)

Building bridges

STS discusses methodological guidelines and quality criteria on the one hand (embedded in concepts such as symmetry, non-reductionism, multiplicity, equity) and the need for creative openness on the other. The tendency is to focus on the latter, while many guiding concepts suggest helping foster one's openness toward field sites. As Pink insinuates in her afterword to *Experimental Collaborations*, established STS scholars' methodological claims have become a problem, for their wisdom seemed at time to be the central force in bridging practical issues. In other words, STS is frustrating when it comes across as science with seemingly secret expertise. It is this tendency that the contributions collected here work against. In other words, the books are devices of empowerment.

So what constellations are the researchers assembled here put readers into? The authors are building bridges that offer ways to link methodologically formulated criteria and fruitful research practice. Taking a cue from Suchman's (2000) canonical observation about literal bridges – these infrastructural entities we walk or roll on –, methodological work is about alignment work that brings together story-telling with fine-grained material compositions. If we understand the installed arrangements as bridges, however, a closer look at the texts reveals different types of construction and routes to be taken. Lessons can be learned from this. The assembled texts offer three valuable interventions, I suggest.

First there is direct didactic value. Tricks of the trade of doing qualitative research with and through STS are illuminated by the publications discussed here, which can guide building processes, indeed make approaches "applicable", as in: indicating what is in/appropriate. The procedures described are concrete, the authors meet the readers at eye level. With their contributions,

the authors show stabilisation work and alternative forms of construction that may make up bridges.

Yet, the engagement goes beyond a merely prescriptive understanding of methods. Here the didactic level aligns with a second valuable contribution. The editors and authors address the importance of interactive and experimental techniques, suggesting multiple – and competing – ways to make concepts tangible in specific settings. I have recognised myself here at various points – based on my multi-sited, global ethnographic research on e-waste (Laser, 2020) – rethinking my research encounters and interpretative labour. Particularly convincing were those contributions and reflections that, without many cross-references, elaborated and classified their respective research process with precision, passion and verve. Thus I was able to put myself in the interpretive session of a research team in action, relive the interventions of the widow of a local Russian science celebrity in her interventions in interview authorisation or felt an urge to help designers reset a room and experiment with architecture.

Lastly, the contributions show a deep appreciation for the diverse visible and sometimes unseen actors that enable (and hinder) a research process. They thus help to learn from and attune to maintainers' and repair actors' competences. This third aspect emphasises how researchers can attune to material affordances and situated knowledges.

The genre, which is being consolidated here, is still characterised by uncertainties and roadblocks. Inspired by an editor like Germano, I have asked myself at various points to what extent a specific detour I had to follow advances an argument. On the one hand, the contributions are shaped by a critical lens on the added value of STS concepts. On the other hand, I would have liked more courage, also from the volume's and book series' editors, by suggesting to delete digressions in favour of the methodological problem at stake (this holds true in particular for some of the German texts discussed here and is an artefact, I think, of a still secondary handling of rhetoric and accessible language in German-speaking social science). STS has convincingly made the turn from the "why" to the "how" of knowledge creation but must not forget to tie its own claims back to a

"why" and "so what" for the readers. Just gathering more "complexity" and "nuance" is not enough. This perspective risks losing the interventional capacity of STS, in particular on the conceptual level. I understand this as a search process though, in which the exploration of boundaries is part of the process.

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