THE THINGS TO COME – ETHNOGRAPHIES OF OBJECTS

DESCRIPTIVE AND ANALYTICAL APPROACHES IN SCIENCE & TECHNOLOGY STUDIES

Objects are central to all of our means of social interaction. Over the past decades Science and Technology Studies have been virtuous in developing methods for studying objects from a social science perspective. The literature often presents results pointing to the social lives of objects along with conceptual discussions of objects and materiality. It rarely discusses in detail the methodological techniques of how to go about actually studying objects.

Objects, artefacts or materiality were early on central and even defining for Science and Technology Studies. STS study science together with technology due to the basic insight that science and indeed any knowledge are produced by way of technologies (Latour & Woolgar, 1979). But technology also soon came to be a study in its own terms as it was pointed out that shaping technologies implies building society (Bijker et al., 1987). From the beginning the methods for studying technology were historical, but also ethnographic. Ethnography seemed particularly useful for reaching beyond understandings of technology as passive tools over which humans have control, and who in themselves lack agency.

As it has been shown over and over again, objects and human agency may be separate in discourse and analytics. However when attending to, and particularly when being involved in technological practices, it becomes clear that in practice any definite boundaries between humans and objects often vanish. With its principle of general symmetry (Latour, 1993) Actor-Network Theory even came to emphasize the need to treat social and material phenomena on the same terms in empirical research. With his notion of network and hybridity Latour (1993) emphasised the need to study the entanglements of social and material processes, just as Haraway (1988) with her notion of the cyborg emphasised the always already technical character of the human being. Star and Griesemer's (1989) notion of boundary objects points to the coordinating function objects may gain, just as Star and Strauss (1999), with inspiration from feminist technoscience, pointed to the invisible work done not only by women but also by objects and other members of society that tend rather to be granted the role of serving than of being served. It was also Star together with Ruhleder (1994) who suggested the notion of infrastructure and thus pointed to how objects melt into their environments and become transparent through continuous work is done to keep the infrastructure stable and the objects transparent.

Mol and de Laet (2000) pointed to how an object such as a Zimbabwe bush pump may be stable in a different way than by keeping all its elements the same and together. They suggested that objects may

take a fluid shape in which their stability is characterized by stepwise modifications and plasticity. From Mol (2002) we furthermore learn that objects may, like bodies and other phenomena, be multiple. Following postcolonial and feminist analyses decentering the subject, Law aims at decentering the object in Euro-American knowledge traditions (2002). Outside the Euro-American sphere Verran and Cristie (2012) discuss how different material objects enable and hinder indigenous memory practices, and Holbraad, Wastell and Henare (2007) nicely demonstrate how helpful things are to think through when trying to understand distant cultures. Reviving a theme in STS that at least goes back to Winner's (1980) "Do Artifacts have Politics?". Nootje Marres (2012) analyses how politics is done through materiality. In recent years the much discussed "turn to ontology" in STS (Sismondo, 2015 or Woolgar & Lezaun, 2015) is founded on an emphasis on materiality and on the crucial importance of taking objects into account in any social science research.

Despite the increasing attention given to objects in Science and Technology Studies and the vast amounts of concepts available for studying objects, methodological discussions of how to do research on objects in STS are mainly conceptual and rarely engage with the practical challenges emerging when actually doing ethnography of and with objects.

CONCEPT OF THE ONLINE PUBLICATION

From June 6th until June 10th 2016 the PhD summer school "Ethnographies of Objects – Descriptive and analytical approaches in Science & Technology Studies" took place at the Ruhr-University Bochum. It was organized by the authors of this introduction together with Josefine Raasch. The guest lecturers of the Summer School were Jeannette Pols (Amsterdam), Helen Verran (Darwin) and Lars Bluma (Bochum). Focusing on ethnographic approaches, the aim of the summer school was to improve observational, descriptive and analytical tools of young researchers to interrogate the manifold ways in which objects are entangled in our everyday lives. There was a strong emphasis on working on the participants' own research objects and finding ways to think through them collectively.

The collection of articles presented in this online publication was worked on at the Summer School. This publication is an attempt to provide insights into this collective analytic work mode. It does so through its twofold focus on the practicalities of doing ethnography with objects and highlighting the diversity of possible approaches. This diversity is reached through the commentaries to the papers of this collection to be found after each respective paper. Every author and two additional participants of the summer school wrote a commentary on another author's paper. With the permission of the original author these are now standing side-by-side with the articles as traces of the cooperative work mode connecting thoughts, analytic and theoretical approaches in the ethnographic study of objects. They link and relate the papers like a thread in the publication, and in the process of writing a dynamic interaction between

authors and commentators took place, improving the character of the contributions. Instead of simulating a peer review, only leading to an author changing his or her paper and thereby returning into a single-voiced result, we want to stress the processual nature and collectiveness of knowledge production that allows ambiguity and heterogeneity of approaches to our object[ive]s.

SUMMARY OF THE CONTRIBUTIONS

The contributions may be divided into two sections: the first three papers by Ivanova, Perriam and Both are of essayist nature, engaging with the practicalities of finding, following and analyzing their ethnographic research objects. In the second part, Jacobsen and Wittock present a theoretical approach to studying their research objects.

DARA IVANOVA'S essay on *Losing and Finding: On the curious Life of ethnographic Objects* deals with how a researcher's emotions towards his or her research object can be turned into an epistemological tool when working ethnographically with an object. Drawing on her work on a foundling room for infants to be left safely and anonymously for adoption, she describes how researcher and research object form a relationship throughout different phases. Following an object means here to find the relationship one builds with the research object: first becoming attached through curiosity, then thinking through the normativities it provokes in the researcher, follow it into the infrastructures in which it is embedded and embrace the researchers' emotions towards it by finally turning these emotions into a reflexive ground of making, un-making and re-making an object within the research process.

DARA IVANOVA'S paper is discussed by NATHAN WITTOCK who points out how he and Ivanova ask "similar methodological questions with almost the opposite answer". He underlines how Ivanova´s contribution focuses on her emotions as a starting point to a witty and rich personal reflection on how doing an ethnography of an object means to constantly search for its boundaries and yet always be prepared to go beyond them whereas he and his colleagues take a more theoretically informed and rather conceptual perspective on the European blood bank as a Social Topology. Interestingly enough, Wittock concludes, that besides the different turns in their argumentation and their different ways to include their theoretical standpoints both papers make sense of their objects in quite similar ways.

In her paper on *Ethnography, Objects and Reflexivity: A Case Study of the Selfie Stick* JESSAMY PERRIAM focuses on how objects of a rather faddish nature such as the selfie-stick might be observed from a Science and Technology Studies perspective with the concept of disconcertment and an autoethnographic and ethnomethodological approach. The latter in terms of doing a breaching experiment. Perriam argues for the co-existence of discourses on the selfie-stick from strong rejection by journalists and the public to broad attention and wide use in everyday life. The former relate its use to narcissism and potential harm and the latter to its representations for social media platforms such as

Instagram and Twitter. The selfie-stick and the specific images it produces may be understood as enabling a multi-layered socio-technical assemblage of (non-)human relations, existing in both material and digital field sites.

In response to JESSAMY PERRIAM's paper FRANZISKA WEIDLE describes the selfie-stick as an object that is as complicated, variable and entangled within its sociotechnical assemblage(s) than any other object commonly examined in Science and Technology Studies. What is interesting about the selfie-stick to her are the multiple appropriations it provokes, namely the gap between the strong rejection by the public and its extensive use in everyday life. She also emphasises the fascinating ways in which Perriam gains insight through these processes of appropriation and through the diverse uses of the selfie-stick. Through her breaching experiment in which she used a selfie-stick in a gallery Perriam was able to transform her own disconcertment within her research object. She could thus analyze the discrepancies between users and commentators due to their "varying experience and levels of literacy as the object is being inserted in roles and narratives constitutive for and disruptive of underpinning standards, values and ideologies."

In his contribution on *Accomplishing Autonomous Driving: An unfinished Description* GÖDE BOTH stresses the multiplicity of possible answers to what his research object might be: an autonomous or self-driving car and its related practices. Drawing on ethnographic descriptions Both questions the definition of autonomy in this context in which there is a constant oscillation between manual and autonomous driving. This leads to a conceptualization of autonomous driving as a collective achievement of heterogeneous elements. Both thus argues for the multitude of spatial, temporal and personal configurations and distributions across related objects, humans and practices.

NATHAN WITTOCK discusses *Accomplishing Autonomous Driving* by GÖDE BOTH as a relevant contribution to the ethnographic study of objects within STS "that are characterized by an entanglement between multiple epistemological fields". He highlights how the author understands to depict the complex and fragmented nature of his research object "oscillating between 'a good old-fashioned automobile and an experimental driverless car'" with an accordingly multiple and 'unfinished description'.

Temporalities of Assembling Transport Systems: Presences and Absences in a Planning Process is based on MALVE JACOBSEN's ethnographic work on the Dar es Salaam Rapid Transit (DART) system in Tanzania. She understands DART as an infrastructure in constant (re-)making and highlights its (non-)human actors and their contribution of spatial and temporal assemblages to its socio-political dimensions. Objects such as technical descriptions for the manufacturer or materialised bus prototypes are defined as 'scripts' inscribing and de-scribing the possible practices, changing over time while being

adapted to the entire process of implementation. Jacobsen stresses the co-existence of several scripts, both in material and discursive shapes and in their varying absences, presences and absent-presences over the process of the implementation process. She argues how the absence of registering the busses' number plates for instance, then might be read as a political interference or materialisation of the state in an infrastructure delaying DARTs implementation over months. Presences or absences of object's scripts or objects themselves have the agency to modify the entire script of an assemblage as much as the modification of its use by the human actors.

GÖDE BOTH stresses the compelling and rich descriptions offered by MALVE JACOBSEN on the "realities of implementing Dar es Salaam Rapid Transit (DART)". He discusses the advantages and disadvantages of the author´s decision to analyse her research object through the notion of "assemblage" instead of "network" and invites Jacobsen to elaborate on the underlying meanings of the terms 'infrastructure' and 'system' and the temporalities of its implementation as a non-linear process even further.

As a response to his commentary MALVE JACOBSEN presents a revised version on *Temporalities of Assembling Transport Systems: Presences and Absences in an Intermittent Process* of her paper underlining our collective approach by linking to multiple temporalities, objects being multiple and changing over space and time or by interacting with other actors even further.

NATHAN WITTOCK, MICHIEL DE KROM and LESLEY HUSTINX contribute to this volume with a theoretical and methodological essay on *Making Sense of a Messy Object: How to use Social Topology as an analytic Tool for Ethnography of Objects* Drawing on the social topology framework by John Law and Vicky Singleton they specify analytic points of departure in understanding and re-imagining the spatiality of their research object: the European blood economy. Following Law and Singleton they describe its 'messy' enactments as regions, networks, fluids and fire space. In their conclusion, they aim to transpose social topology from being an interpretive tool to becoming an analytic tool for the ethnography of objects.

ALEV COBAN underlines how WITTOCK ET AL. depict the theoretical approach of Social Topology and the manifold possibilities of further analysis of their research object. In her commentary on WITTOCK ET AL.'S contribution JESSAMY PERRIAM stresses how the article inspired her to follow three questions: how much theorising is necessary in order to "strike an abductive middle ground" between induction and deduction? What are the possibilities of mobilising an approach such as the social topology framework? And does this or any theoretical framework serve to domesticate a messy object?

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