

# **20 YEARS OF ‘TECHNOLOGY BROKERING AND INNOVATION IN A PRODUCT DEVELOPMENT FIRM’: THE ETHNOGRAPHY AS A RESEARCH METHOD IN ORGANIZATIONAL STUDIES**

## **Introduction**

I am not an important person. I will hardly ever be considered that way. However, in a “hypothetical hypothesis” where I become a famous scholar and in yet another even more remote scenario, that I am interviewed on a TV show, if the interviewer asks me (this is just a dream, ok?) which article influenced me the most as a graduate student, I will look at the camera and answer “Technology brokering and innovation in a product development firm”. This is an ethnographic study conducted by Andrew Hargadon from Stanford and Robert Sutton from Berkeley (Hargadon & Sutton, 1997), which described how the designers at the iconic American design company IDEO, came up with their inventive ideas.

I chose this article to answer the question (in my sweet dream) since it is connected to the awakening of my beliefs about how to understand the human behavior and learning process (mainly because the method applied). A true process of self-knowledge. The context of the paper, based on a company that I admire, and describing a phenomenon that calls my attention (the innovation process) potentialized my interest in this article. Therefore, I will discuss in this brief paper what is ethnography that made the Hargadon and Sutton`s work so unique. But I would like first to describe the context in which I read it.

It was 2008, and I was just starting my Master in Business after 15 years working for multinational companies in my country. My supervisor at that time, an experienced professor who did his Ph.D. at Stanford in the 1970s, “asked” me to read this paper. Inexperienced, I was reluctant because ethnography, at that moment in my mind, was an approach used by anthropologists in their work with indigenous communities in Brazil. I was wondering that it was not an “appropriate” method for management studies (oh, dear!). However, after I read the paper, I was fascinated by the way that Hargadon and Sutton described their research and findings. Then, I was just starting my career in academia and I had already learned an important lesson, also highlighted by Cunliffe (2009), that you cannot judge one research (e.g., interpretivist-based) using the lens of the other (e.g., positivist-based).

So many years later, my colleague and I are here to follow Hargadon and Sutton`s footprints to understand better what ethnography is and how we can apply the organizational ethnography approach in business and management studies. At the same time, we pay a little homage to the 20 years of publication of this influential article.

## **Ethnography**

If you like short and strict definitions, one definition that may suit you can be found in Creswell (2012, p. 461) “ethnography literally means writing about groups of people”. ‘Ethno’ comes from Greek and means “race, people or culture”. ‘Graphy’ means field of study and is also related to processes like writing as well. Evidently, Creswell provided a more elaborate definition of ethnography, highlighting its qualitative approach. Furthermore, he characterized ethnography as research procedures applied to describe, analyze and interpret the “culture-sharing group’s shared patterns of behavior, beliefs, and language that develop over time” (Creswell, 2012, p. 462). Cunliffe (2009, p. 227) seems to bring together all these elements claiming that ethnography “is about human experience”. He also emphasized that ethnography is much more than using surveys and interviews in a given site. Ethnography is an interaction with the community, taking part in its life.

Ethnography is not a simple approach. As Goodall (2000) observed to become an ethnographer are needed to learn how to do fieldwork, how to write, know who you are as a fieldworker, writer and as self, and how and where to link all these activities in a meaningful way.

The genesis of the ethnographical studies seems to be attributed to the work of Gerhard Friedrich Müller (1705-1783) in the Second Kamchatka Expedition (1733-43) where he described the people that he met (their manners and customs) (Vermeulen, 2008). Although there is no consensus related to the origin of ethnography, another current view described the history of the modern ethnography as a method, based on Bronislaw Malinowski and his experiences developing the ethnography, mainly in his famous book “Argonauts of the Western Pacific: An account of native enterprise and adventure in the Archipelagoes of Melanesian New Guinea” published in 1922 (Souza, 2014).

Ethnography is historically connected with cultural anthropological studies (Creswell, 2012; Goulding, 2005), but any other discipline where people interact is a potential candidate for applying ethnographic approach as a research method. In this sense, business and management are fertile domains to ethnography, despite the dominance of positivist paradigm and the consequent friction that emerges from the review process of qualitative studies in top-tier journals in North America (Pratt, 2008). However, “to provide a natural home within the social and management sciences for organizational ethnographies” (Brannan, Rowe, & Worthington, 2012, p. 5), a new journal was created in 2012, the Journal of Organizational Ethnography.

### **Organizational Ethnography**

Many authors have contributed to organizational ethnography. Among the most important is John Van Maanen, who for more than 20 years has conducted ethnographical studies in organizations and is responsible for the classic book, “Tales of the Field: On Writing Ethnography” (Van Maanen, 2011). Other highly important and internationally respected authors who have published papers about organizational ethnography research and ethnography itself as a research method are Tony Watson, Bud Goodall and Brian Uzzi. Watson published a “manifesto” for organizational ethnography (Watson, 2012) and is also responsible for many studies in the field. Goodall's major contribution to the field is his important book “Writing the New Ethnography” (Goodall, 2000). Uzzi is a very highly cited scholar who applied ethnography in business and management field to understand interfirm networks (Uzzi, 1996, 1997).

As Cunliffe (2009) stated, although these important authors on ethnography told different tales in different contexts, all of them share the same approach in that they understand ethnography more than a method of data collection but “a way of engaging with the world around us, an epistemological stance informed by a particular set of assumptions about the way the world works and how it should be studied” (p. 233).

We support the idea that Hargadon and Sutton did not want to take a place in the “hall of fame” of organizational ethnography when they published “Technology brokering and innovation in a product development firm”. However, we believe, even completely aside from our interest in the topic studied, this paper truly represents the way to do a good organizational ethnography based on the design applied in the research. Nevertheless, before to present how Hargadon and Sutton conducted their research, we will briefly describe the different ethnography designs presented in Creswell (2012) and the data collection methods concerned with this method.

## Ethnography Design

Creswell (2012) highlighted three different basic types of ethnographic study designs: the realist ethnography, the case study and the critical ethnography. In the realist ethnography, the author describes in an objective way the situation studied and writes in the third person in an attempt to avoid tainting the report with personal bias. Ethnographic case studies are in general confused with the traditional approach to case studies (for details see Yin, 2005). They are more interested in studying the groups per se, their behavior and culture rather than only their activities. Finally, critical ethnography is anchored in a political perspective to give, for example, a voice to marginalized groups.

Regardless of the ethnographic design adopted the data collection can be classified as follows in Table 1 below.

**Table 1.** Data collection methods

Method	Purpose
Observation	Record situations as they happen. Record the meanings of these events at the time for study group participants.
Tests and repeated measures	Determine efficacy of an intervention or verify a hypothesis about a treatment or innovation.
Population or sample survey	Determine variation in attitudes, knowledge, perceptions, demographic information, and behavior of a known study population Obtain limited information from many people.
Ethnographic interview	In-depth information on selected topics: Personal histories; Cultural knowledge and beliefs; Description of practices.
Content analyzes of secondary archival, textual, or visual data	Elicitation of themes or content in a body of written or printed media Provision of historical or background information.
Focused group interviews	Obtain information about: Norms; Behavior; Attitudes; Cultural domains; Innovations; Appropriate topics and wording for instrument content.
Elicitation methods	Obtain data on ways people categorize and organize understanding of cultural domains using researcher initiated stimuli.
Audiovisual methods	Obtain or create accurate detailed audio or visual record of events, interviews, program activities.
Spatial mapping	Obtain data on the ways in which social, demographic, cultural, economic, political, and geographic data vary across spatial units.
Network research	Obtain data on patterns of relationships and exchanges among individuals, groups, and other social units Understand diffusion of behavior and information through a network.
Collection of cultural artifacts	Discovery of meanings attached to and function of material culture items made, used, purchased, traded for, or otherwise obtained by individuals or members of a group Elicitation of description of cultural technologies.

**Source:** LeCompte and Schensul (2010, p. 145)

As Ybema, Yanow, Wels, and Kamsteeg (2009, p. 27) clarified, ethnography can help researchers in organizational studies answering questions like:

- What are the relationships between different actors in a specific organizational process?
- What form does the organizing process that is studied take and how does it change?
- Why does this particular form of organizational interaction occur in this specific context?
- How do relations of power and contestation emerge in organizational processes, and how are these related to meaning (symbols and cultural forms)?
- What are the effects of a specific organizational process on particular socio-economic relationships?

The study of culture is embedded in ethnography. Hargadon and Sutton discovered a cultural issue when they were looking for an answer to two different questions. First, they examined how does IDEO innovate routinely? Secondly, they tried to understand the process that makes IDEO act as a broker, transferring a given technology from one field to another.

Design is the core business of IDEO and innovation is part of its culture. What reinforced the cultural character of Hargadon and Sutton's investigation was their method design which focused on product designers instead of senior managers. As they stated the "primary aim was to understand how people do and experience innovative work, not how it is viewed by management or support staff" (Hargadon & Sutton, 1997, p. 719).

Between March 1994 and May 1995, Hargadon and Sutton spent six to eight hours per week at IDEO observing people work, interviewing them and collecting artifacts produced during the innovative work. Between May 1995 and February 1996 at least one of the authors visited IDEO once a week and through December 1996, once a month, to collect more evidence and check facts that were published about IDEO.

Hargadon and Sutton highlighted seven categories of evidence that they pursued in their work:

1. Track development projects: each author follow a design team and its process to develop a prototype for an IDEO's client.
2. Semistructured interviews with designers and managers: 35 people were interviewed (60 interviews in total, 37 taped-recorded).
3. Informal discussions: hundreds of conversations with IDEO's clients and IDEO's managers, designers and staff about various topics.
4. Brainstorming sessions: observations from 24 group (18 video-recorded) brainstorming sessions in which products were designed (each one between 45 minutes and two hours in duration).
5. Other meetings: diverse themes from, for example, how to handle a client and "Monday morning meetings" to talk about company issues, events, etc.
6. Design team interviews: four retrospectives, tape-recorded interviews with the design team taking about the details of the design process of four different products developed by IDEO.
7. Materials about the organization: alongside many sources about IDEO's stories (e.g., Wall Street Journal, Wired, Business Week, etc.), Hargadon and Sutton reviewed 1,400 photographs of product sketches, prototypes, design process and developed products.

To explain how innovation occurs at IDEO, Hargadon and Sutton proposed a model anchored in the concept of organizational memory (Walsh & Ungson, 1991). This model, comprised of four steps (access, acquisition, storage, and retrieval), was demonstrated by evidence gathered for each one of the seven categories described above. Their analyzes were based on interactions with data as described by Strauss and Corbin (2008) and Miles and Huberman (1994). Additionally, Hargadon and Sutton produced a well-written paper, that engaged the reader and kept them connected with the narrative. We would like to highlight the didactical tables employed by the authors that carefully present the summary of the evidence gathered and applied for each one of the four steps in their model.

### **Conclusions**

We analyzed the Hargadon and Sutton's 1997 paper with the purpose to unpack (just a little) the ethnography method attempting to foster some reflections.

The positivist paradigm is prevalent in business and management fields, mainly among the top journals. In this sense, the publication of "Technology brokering and innovation in a product development firm" was welcome and revealed ethnography as a significant method to investigate organizational phenomena (cultural or even processes/routines) that needed deep understanding. Hargadon and Sutton's paper is a distinguished example of this claim because it shed light on organizational innovation process and emphasized the role of organizational memory and investigation that could not be addressed by a quantitative research method.

Although ethnography studies appear as an interesting method for gaining a profound understanding of organizations, they are time consuming (Ybema et al., 2009). Hargadon and Sutton expended years in their research; an impressive and non-insignificant time commitment. Cunliffe (2009) claimed that time is one of the reasons that explains the lesser popularity of ethnography studies in organizational studies, mainly in times where scholars work under the pressure of "publish or perish".

Another relevant consideration expressed by Cunliffe (2009) is the need to deal with the uncertainty that characterizes ethnographic research. This uncertainty might emerge from the need to deal with nuances of experiences and meanings with the duty to accurately transmit the observations of the culture/population/phenomena under study. However, researchers are trained to be objective and disciplined in their way to see and understand the world and as a result can deal with this uncertainty, preventing it from becoming a burden.

Finally, Cunliffe (2009, p. 227) clarified that ethnographic studies are not widely popular since the researchers need good writing skills to create good ethnographies "that convey a sense of the richness and intricacy of the culture being studied". In this sense, Hargadon and Sutton's work can be also viewed as a remarkable example of how to disseminate the results of an ethnographic research project.

I am finishing this brief paper with my colleague with the same fame that I had when I started it, though with a greater understanding of ethnography. My colleague and I are also finishing with the certainty that, 20 years after its publication, that the findings reported in Hargadon and Sutton's paper remains current and express the need for more ethnographic studies and consequently more provocative and reflective research in organizations studies.

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