a place of mind

THE UNIVERSITY OF BRITISH COLUMBIA

EDCP 585
Fieldwork in Actor-Network Theory
Lecture Notes

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1. Fieldwork in ANT + A-NA

a. What is fieldwork in ANT?
   i. Work with informants
      1. Human
      2. Non-human
         a. Animal
         b. Non-biological
   ii. Archive + Field + Home
   iii. **The Field in Flux**

b. Fieldwork in ANT is basically a Four Step Interactive Process
   i. Follow the Controversy—Follow the Actors
   ii. Trace Associations—Make Connections—Register Links
   iii. Account for Translations—Account for Network Building
   iv. Code the Data
      1. Develop the Codebook
      2. Revise and rewrite the thesis statement

c. ## Guide to Fieldwork in ANT

i. Follow the Controversy—Follow the Actors

1. Follow the Controversy

a. Latour (1987), *Science in Action: How to Follow Scientists and Engineers through Society*

i. Uncertainty, people at work, decisions, competition, controversies are what one gets when making a flashback from certain, cold, unproblematic black boxes to their recent past. If you take two pictures, one of the black boxes and the other of the open controversies, they are utterly different. They are as different as the two sides, one lively, the other severe, of a two-faced Janus. 'Science in the making' on the right side, 'all made science' or 'ready made science' on the other; such is Janus *bifrons*, the first character that greets us at the beginning of our journey. (p. 4)

ii. It is all very well to choose controversies as a way in, but we need to follow also the closure of these controversies. Here we have to get used to a strange acoustic phenomenon. The two faces of Janus talk at once and they say entirely different things that we should not confuse. (p. 7)

iii. This is the general movement of what we will study over and over again in the course of this book, penetrating science from the outside, following controversies and accompanying scientists up to the end, being slowly led out of science in the making. (p. 15)

iv. When we approach the places where facts and machines are made, we get into the midst of controversies. The closer we are, the more controversial they become. When we go from

'daily life' to scientific activity, from the man in the street to the men in the laboratory, from politics to expert opinion, we do not go from noise to quiet, from passion to reason, from heat to cold. We go from controversies to fiercer controversies. (p. 31)

b. 'What is the Research Problem?' is readily translated into 'What is the controversy?'
c. At some point the research problem will emerge and be refined or refocused.
    i. Mapping controversies (see Lecture Notes).
    ii.

2. Follow the Actors

a. Latour (1987), *Science in Action: How to Follow Scientists and Engineers through Society*
    i. Instead of black boxing the technical aspects of science and then looking for social influences and biases, we realised in the Introduction how much simpler it was 'to be there before the box closes and becomes black. With this simple method we merely have to follow the best of all guides, scientists themselves, in their efforts to close one black box and to open another. (p. 21)
    ii. Rule I We study science in action and not ready made science or technology; to do so, we either arrive before the facts and machines are blackboxed or we follow the controversies that reopen them. (p. 258)
    iii. Understanding the bearing of bacteriology on 'society' might be a difficult task; but following in how many legal, administrative and financial operations bacteriology has been enrolled is feasible: just follow the trail. (p. 255).
b. Law & Callon (1988, pp. 284-285):
    i. There is an old rule of sociological method, unfortunately more honored in the breach than the observance, that if we want to understand social life then we need to follow the actors wherever they may lead us….
    ii. If we are to study the work of the *engineer-sociologists* (Callon, 1987) in our midst, then we need to press our methodological adage one stage further. Specifically, it is important to *avoid taking sides* in cases of controversy or failure. We have to be agnostic about the prospects of success for any engineering project, and in particular we must avoid assuming that the fate of projects is written into them from the outset. To take sides is, of course, to abandon the original methodological adage. But it is also to run the risk of assuming that success (or failure) was preordained….
    iii. Thus we are not primarily concerned with mapping interactions between individuals. Rather, in conformity with the methodological commitment to follow the actors no matter how they act, we are concerned to map the way in which they *define and distribute roles, and mobilize or invent others to play these roles*. Such roles may be social, political, technical, or bureaucratic in character; the objects that are mobilized to fill them are also heterogeneous and

may take the form of people, organizations, machines, or scientific findings.

c. Latour (1999, p. 20):
   i. Far from being a theory of the social or even worse an explanation of what makes society exert pressure on actors, it always was, and this from its very inception (Callon and Latour, 1981), a very crude method to learn from the actors without imposing on them an *a priori* definition of their world-building capacities.
   ii. The ridiculous poverty of the ANT vocabulary—association, translation, alliance, obligatory passage point, etc.—was a clear signal that none of these words could replace the rich vocabulary of the actor's practice.
d. Latour, *Reassembling* (2005)
   i. (p. 33): As a rule, it's much better to set up as the default position that the inquirer is always one reflexive loop behind those they study.
   ii. (p. 47): The mistake we must learn to avoid is listening distractedly to these convoluted productions and to ignore the queerest, baroque, and most idiosyncratic terms offered by the actors, following only those that have currency in the rear-world of the social..]
   iii. (p. 62): ANT is simply the social theory that has made the decision to follow the natives, no matter which metaphysical imbroglios they lead us into.
   iv. (p. 151) I was going to say: one moment you are a naive realist—back to the object—and the next you say that you just write a text that adds nothing but simply trails behind your proverbial 'actors themselves'.
   v. (p. 251): The definition of a social science I have proposed here by building on the sociology of science should be able to reclaim an empirical grasp, since it travels wherever new associations go rather than stopping short at the limit of the former social.

ii. Trace Associations—Make Connections—Register Links

1. Latour, *Science in Action: How to Follow Scientists and Engineers through Society* (1987)
   a. We have seen how to be free from the belief in the irrationality of certain claims (Part A), and also from the symmetric belief that all claims are equally credible (sections 1 and 2). We can go on following people striving to make their claims more credible than others. While doing so *they map for us and for themselves the chains of associations that make up their sociologics*. (p. 202)
   b. The main characteristic of these chains is to be unpredictable— for the observer— because they are totally heterogeneous- according to the observer's own classification. (p. 202)
2. Latour, *Reassembling* (2005)
   a. The task of defining and ordering the social should be left to the actors themselves, not taken up by the analyst. This is why, to regain some sense of order, the best solution is to trace connections between the controversies themselves rather than try to decide how to settle any given controversy. The search for order, rigor, and pattern is by

no means abandoned. It is simply relocated one step further into abstraction so that actors are allowed to unfold their own differing cosmos, no matter how counter-intuitive they appear. (p. 23)

3. Latour, *Reassembling* (2005, p. 24): ANT claims that it is possible to trace more sturdy relations and discover more revealing patterns by finding a way to register the links between unstable and shifting frames of reference rather than by trying to keep one frame stable.
4. **Don't Fill It In**
    a. Latour, *Reassembling* (2005, p. 150): No trace left, thus no information, thus no description, then no talk. *Don't fill it in*.
5. **Where to start?**
    a. What is the central relationship within the controversy?
    b. How is that relationship maintained?
    c. Start with the relationship or association between two or three actors initially identified emergent as central.

iii. Account for Translations—Account for Network Building

1. Callon, "Some Elements of a Sociology of Translation" (1986):
    a. The four moments of translation [Problematization, Interessement, Enrollment, Mobilization]… during which the identity of actors, the possibility of interaction, and the margins of manouevre are negotiated and delimited. (p. 203)
        i. The problematization, or how to become indispensable (p. 203)
            1. The interdefinition of the actors
            2. The definition of obligatory passage points (OPP)
        ii. The devices of interessement, or how the allies are locked into place (p. 207)
        iii. How to define and coordinate the roles: Enrollment (p. 211)
        iv. The mobilization of allies: Are the spokesmen representative? (p. 214)
    b. To translate is to displace. (p. 223)
    c. Translation is the process by which the social and natural worlds progressively take form.
    d. The result is a situation in which certain entities control other actors. Understanding what sociologists generally call power relationships means describing the way in which actors are defined, associated, and simultaneously obliged to remain faithful to their alliances. The repertoire of translation is not only designed to give a symmetrical and tolerant description of a complex process which constantly mixes together a variety of social and natural entities. It also permits an explanation of how a few obtain the right to express and to represent the many silent actors of the social and natural worlds they have mobilized. (p. 224)
2. Note that these moments of translation are steps in **network building**; this sociology of translation helps researchers follow actors in their **world building** activities. These moments of translation help researchers account for how networks are built or established and stabilized or tested over time. Data collection and analysis must necessarily account for moments of association and translation yet this constitutes merely one step in the methodology of ANT.

iv. Code the Data

1. Develop the codebook

a. DeCuir-Gunby, Marshall & McColloch, "Developing and Using a Codebook for the Analysis of Interview Data" (2011, p. 138): A codebook is a set of codes, definitions, and examples used as a guide to help analyze interview data. Codebooks are essential to analyzing qualitative research because they provide a formalized operationalization of the codes.
    i. See also e.g.,
        1. Gioia, Thomas, Clark & Chittipeddi, "Symbolism and Strategic Change in Academia" (1994).
        2. Rivas, "Coding and Analyzing Qualitative Data" (2004).
b. A codebook necessarily includes a conversation or articulation among data, informant codes, and analytical, or ANT, codes.
    i. What informant codes emerge from the data?
    ii. What ANT codes are most important or germane?
        1. **ANT provides a rough *and* refined working frame for coding. It provides a start list of analytical codes.**
        2. See e.g., See e.g., Codebook for "Muskrat Makes the Hat—Hat Makes the Mountie"
c. Methodologists of Actor-Network Theory have said little to nothing about coding data. Similarly, those who adopted ANT methodologies have taken for granted the process of coding. This steps clarifies and informs the first four steps of ANT.
    i. Types of Codes
        1. Informant codes
        2. Analytical codes
            a. ANT codes
    ii. QDA Techniques
        1. Collecting Data
        2. Coding Data
        3. Classifying Data
        4. Categorizing Data
    iii. The DANA (Dynamic Actor-Network Analysis) project and workbench attempts to remedy this void of attention to QDA in ANT http://dana.actoranalysis.com
        1. The design of the workbench is largely determined by the underlying method of actor network analysis. This method (dynamic actor network analysis = DANA) leads the analyst to think in terms of actors who all have their own problem perception. By making these perceptions explicit in a qualitative, conceptual language and then perform different types of comparative analysis, the analyst sharpens her insight not only in the policy situation at hand, but also in her own reasoning (analyst as reflective practitioner). The representations of actor perceptions may also serve as (organizational) memory and as a basis for discussion amongst analysts and/or actors.
    iv. Miles, "Qualitative Data as an Attractive Nuisance" (1979): Qualitative data tend to overload the researcher badly at

almost every point: the sheer range of phenomena to be observed, the recorded volume of notes, the time required for write-up, coding, and analysis can all become overwhelming. But the most serious and central difficulty in the use of qualitative data is that methods of analysis are not well formulated. (p. 590)

v. Beginning with Glaser and Strauss (1967), much has been written about developing "grounded theory," "being open to what the site has to tell us," and slowly evolving a coherent framework rather than "imposing" one from the start. But the need to develop grounded theory usually exists in tension with the need for clarity and focus; research projects that pretend to come to the study with no assumptions usually encounter much difficulty. We believed—and still do—that a rough working frame needs to be in place near the beginning of fieldwork. Of course it will change. (p. 591)

d. Codes, Classifications & Categories
   i. Miles & Huberman, *Qualitative Data Analysis* (1994, p. 56): Codes are “tags or labels for assigning units of meaning to the descriptive or inferential information compiled during a study.”
   ii. Basitt, “Manual or Electronic? The Role of Coding in Qualitative Data Analysis” (2013): Codes or categories are tags or labels for allocating units of meaning to the descriptive or inferential information compiled during a study. Codes usually are attached to chunks of varying-sized words, phrases, sentences or whole paragraphs, connected or unconnected to a specific setting. They can take the form of a straightforward category label or a more complex one, for example, a metaphor (Miles and Huberman, 1994). Seidel and Kelle (1995) view the role of coding as noticing relevant phenomena; collecting examples of those phenomena; and analysing those phenomena in order to find commonalities, differences, patterns and structures. (p. 144)
   iii. Codes are links between locations in the data and sets of concepts or ideas, and they are in that sense heuristic devices, which enable the researcher to go beyond the data (Coffey and Atkinson, 1996). Two analytic procedures are basic to the coding process, though their nature changes with each type of coding. The first pertains to the making of comparisons, the other to the asking of questions. In fact, grounded theory is often referred to in the literature as ‘the constant comparative method of analysis’ (Glaser and Strauss, 1967). Category names can come from the pool of concepts that researchers already have from their disciplinary and professional reading, or borrowed from the technical literature, or are the words and phrases used by informants themselves (Strauss and Corbin, 1990). (p. 144)
   iv. Miles and Huberman (1994) point to two methods of creating codes. The first one is used by an inductive researcher who may not want to pre-code any datum until s/he has collected it, seen how it functions or nests in its

> context, and determined how many varieties of it there are [data-driven]. This is essentially the 'grounded' approach originally advocated by Glaser and Strauss (1967). The other one, the method preferred by Miles and Huberman, is to create a provisional 'start list' of codes prior to fieldwork [method- or theory-driven]. That list comes from the conceptual framework, list of research questions, hypotheses, problem areas and/or key variables that the researcher brings to the study. (p. 145)

2. Revise and rewrite the thesis statement from the codebook and data analysis.
    a. See e.g., Comparative thesis statements for "Muskrat Makes the Hat—Hat Makes the Mountie"
3. Write the narratives or descriptions for the case.
    a. Latour (2005, pp. 128-131): I would define a good account as one that traces a network. I mean by this word a string of actions where each participant is treated as a full-blown mediator. To put it very simply: A good ANT account is a narrative or a description or a proposition where all the actors do something and don't just sit there.