



Minerva Access is the Institutional Repository of The University of Melbourne

Author/s:

Demant, J;Ravn, S

Title:

Actor-network theory and qualitative interviews

Date:

2020

Citation:

Demant, J. & Ravn, S. (2020). Actor-network theory and qualitative interviews. Järvinen, M (Ed.). Mik-Meyer, N (Ed.). Qualitative analysis: eight approaches for the social sciences, (1), pp.345-364. Sage Publications.

Persistent Link:

<https://hdl.handle.net/11343/294917>

Chapter 17

Actor-network theory and qualitative interviews

Jakob Demant and Signe Ravn

This is the accepted version of the book chapter, ie the final version before the chapter layout and typesetting. Some minor changes may have occurred in the proof stages.

*The full reference is: Demant, J. & Ravn, S. (2020): 'Actor-network theory and qualitative interviews'. In [*Qualitative analysis – eight approaches for the social sciences*](#), eds. Järvinen, M. and Mik-Meyer, N. London: SAGE.*

In this chapter we illustrate how actor-network theory (ANT) can be applied in empirical research. We do so by briefly introducing a number of concepts from ANT before applying them to an empirical case to illustrate how ANT helps us shed light on new facets of this. ANT is not a macro-sociological theory but a conceptual framework that is brought to life in empirical analysis where the concepts from ANT help us identify potential actors¹ and networks rather than defining them in advance. ANT is not tied to a particular discipline or research field; rather it has been applied to topics as diverse as health (Cresswell, Worth and Sheikh, 2010; Greenhalgh and Stones, 2010; Prout, 1996), crime prevention (Demant and Dilkes-Frayne, 2015; van der Wagen and Pieters, 2015), consumption research (Cochoy, 2018), urban studies (Storper and Scott,

¹The chapter alternates between the terms “actors” and “actants”, both of which are used to represent ANT’s broad understanding of ‘actors’, which we introduce later. We use the term “actants” to underline the potential for action inherent in non-human actors.

2016) and management studies (Smith, Kempster and Barnes, 2017). What unites these studies is an interest in the material, physical, spatial or temporal aspects of a phenomenon, which ANT is particularly well suited for investigating. In contrast, researchers interested in questions about identity, everyday life or the attribution of meaning would typically turn to narrative analysis (Chapter X) or symbolic interactionism (Chapter Y). In this chapter we focus on young people's relationships with alcohol and drugs as a case in point to illustrate how an ANT perspective generates new types of questions and adds to our existing knowledge. It is worth noting that our application of ANT will be based on data from an interview-based study, as opposed to the ethnographic observations on which the majority of ANT-inspired studies are based. The chapter also discusses the potentials and challenges when applying ANT to this type of data – a point to which we will return.

Empirical context: Young people, drugs and alcohol

From the 1990s, research on young people's use of drugs and binge drinking in different parts of Europe, particularly in England (Measham, Parker and Aldridge, 1998), flourished. Growing concern about drug and alcohol use by young people led some British researchers to argue for the normalisation of recreational drug use (Parker, Williams and Aldridge, 2002). This increased consumption was at least partially linked to the advent of changes in the night-time economy. Since the 1990s, most major European cities have seen the emergence of a service economy based on entertainment, food and drinking. This trend was very much driven by a commercialisation of binge drinking and has created new environments for drug taking (Hadfield, Lister and Traynor, 2009). Scholars argue that this new night-time economy has transformed the centres of larger cities (particularly in England) into spaces structured around intoxication (Lindsay 2009;

Bellis and Hughes, 2011; Jayne, Valentine and Holloway 2008), and that illegal drugs are now part of commercial nightlife, in particular in relation to the electronic dance scene (Measham and Moore, 2009).

In what Latour describes as a “sociology of the social”, classic qualitative studies of drug use have tended to focus on its social and symbolic dimensions. Howard Becker’s seminal study “Outsiders” (1963) was one of the first to look at drug taking as a social learning process, through which individuals learn to ascribe the correct meaning to their drug use. Becker stressed the importance of the social setting to this process. His study paved the way for a social constructivist perspective on drug taking, which influenced numerous sociological studies of drug users (Järvinen and Ravn, 2011 or Pedersen and Sandberg, 2013, for example) and dependency (May, 2001). These studies generated wide-ranging and comprehensive knowledge of the meanings attributed to alcohol by different segments of the population, and how these meanings relate to social situations (Sulkunen, 2002).

From an ANT perspective, one objection to this approach is that it “sociologises” the drug – it turns it into a symbol that is interchangeable with something else (see (Weinberg, 2013). For instance, studies have shown that alcohol has symbolic significance for how young people maintain friendships because it symbolises partying (MacLean, 2016), but one could argue that a shared interest in a particular television series or sport could have the same effect. In other words, the constructivist perspective focuses on the *social* elements of drug taking, at the expense of (for example) the spatial and material aspects. If we wish to include these aspects in our understanding of young people and drugs, we must look for approaches that incorporate a wider range of elements into our analysis such as ANT. ANT allows us to study the effects of space, materiality (the actual substance, for example), social relations and time. By identifying

the significant elements in a network, ANT facilitates a broader understanding of the factors that are involved in young people's alcohol and drug consumption. Empirically, the chapter is based on data from qualitative interviews with young drug users. Before turning to these interviews, we introduce the concepts from ANT that guided us in the analysis.

Actor-network theory and its application in drug and alcohol research

ANT² shifts the focus from individuals and their actions to how elements are *connected* in a network in time and space. The most well-known aspect of ANT studies is what is known as the *principle of symmetry*, i.e., that human as well as non-human actors appear in the analyses. This marks a departure from traditional notions of who or what is capable of acting (Latour, 2005). Instead, ANT identifies how human and non-human actors relate to each other and how this affects their characteristics. In simple terms, according to ANT the drug user is not the only actor; the drug, the physical space, the music and so on all “do” something as well – the action is generated by multiple actors. As such, any actor is both active and enacted by other actors because its capacities are established, limited or otherwise mediated by its network (Latour, 2005; Law, 2009; Mol, 2010). Since no actor, human or non-human, acts in isolation, it becomes redundant to talk about individuals as actors that can be observed meaningfully on their own. This is a radically different perspective to that found for instance in relational micro-sociology and symbolic interactionism. ANT shifts the focus away from how we understand the individual in a social context towards how we read the actual relational network and identify which actors have the potential to act. As such, it can be seen as an expansion of Goffman's concept of “the social situation” (Goffman, 1983). ANT retains the relational perspective central to micro-sociology but

²For a more thorough explanation of the concepts we briefly introduce here we refer to Justesen in Chapter 16 of this collection. For further introductory reading we suggest Law (2009) and Mol (2010).

abandons the idea of the self as a central focal point of the analysis. This radical shift is one of the key characteristics of ANT.

The *network* concept is the second key element we apply in our analysis. In general, networks are not clearly delineated. They consist of interconnected elements that exist in relation to one another but do not have a defined centre. As we will show, a network analysis is a way of mapping the various actors (for example people who take drugs, dealers, the substances, the nightclub as a space, etc.) and their relationships to each other. A network does not exist simply because we identify relationships between actors – the actors must be made relevant to each other. This relevance emerges through *translation* – in other words, the way in which actors transform each other through their relationships (or interaction) with each other. One example is the way a drug is transformed from a source of pleasure to an addiction via the part it plays in legislation, institutions, social relations, global conflicts, and so on. For instance, the point is not only that the global ‘war on drugs’ in discourse and policy translates a drug use into a drug misuse through the way drugs are classified, but also, that this process is related to a regulation regime with specific control instruments (e.g. Demant and Dilkes-Frayne, 2015) enabling certain behavioural changes besides the more discursive aspects. The drugs’ concrete characteristics are determined by the network of which they form a part, and the relationships by which they are translated within that network.

One of the keys to any ANT analysis is to retain an open-minded approach by not defining in advance the types of actors that have the potential to act. This is underlined in the concept of *enactment*. We can understand actors as being enacted by the relational network. Their characteristics are determined purely by the connections of which they form part within the network, that is, actors derive their capacities and potentials through their relationships with others

(Latour, 2005). One result of this is that the same actor can have a range of different capacities if it is part of relationships with multiple other actors within the network (Law, 2009). In her study of nicotine replacement therapy Keane (2008) used an ANT perspective to ask what happens with *the drug* (nicotine) in this type of treatment, as opposed to simply focusing on how humans are affected. Nicotine replacement therapy allows people to ingest nicotine without smoking and was seen as potentially revolutionising the way in which people weaned themselves off of tobacco. Drawing on academic literature, public health studies, clinical guidelines and official stop-smoking websites, Keane mapped and described the network and the translations that occurred as different elements made themselves relevant to each other. Using an ANT approach, Keane was able to demonstrate how nicotine replacement therapy allows nicotine to become an agent that can both hinder and facilitate dependency.

Similarly, Emilie Gomart used an ANT approach to study the difference between the psychoactive drugs methadone and heroin – specifically, whether the difference is a matter of interpretation. Given the contrast between how methadone and heroin are “labelled” – the former as “legal” and “therapeutic”, the latter as “illegal” and “harmful” – it would seem reasonable to invoke differing interpretations to explain the difference between them (Gomart, 2002). Gomart provided an ANT analysis based on data from two experiments, in the United States and France. The experiments involved medical practices that prescribed methadone as a substitute for heroin, in order to reduce the user’s (illegal) drug use. Her use of comparative cases presented a clear opportunity to identify the actor-networks. She showed that there are too many elements that vary from trial to trial to say that the ‘interpretation’ of the substance explains the central variation. Instead, her conclusion was that what varies is the substance, not the interpretation of it.

What she identified were different enactments of methadone, enabled by the different experimental setups.

More recently, Jukka Törrönen and Christoffer Tigerstedt (2018) have drawn on ANT to analyse autobiographical data on alcohol dependency. By approaching addiction as a phenomenon made up of multiple actors (an assemblage) they demonstrate how dependency is the result of the specific attachments between the addiction assemblage and other assemblages. As they argue, “it is not the decision, will or self-control of an actor alone that can tame addiction. Rather, this decision, will or self-control needs to have assemblages that enable it to act, i.e. it needs to be combined with other elements that help the actor to make the harmful effects of alcohol absent” (ibid., p. 65). In other words, changing the effects of alcohol requires a change in the actor-networks that this alcohol use is part of.

Methodological considerations

Traditionally, ANT studies draw on qualitative data – primarily ethnographic observations and documents, but also, to some extent, on qualitative interviews. Few classic ANT studies were based on qualitative interviews alone. Observation and documentation are considered better ways to “follow the actor” and maintain an open mind about the field of study (Latour, 1987; Latour, 2010). In the studies that do incorporate qualitative interviews, they tend to be embedded in ethnographic fieldwork or, in some cases, form part of historical documents. The main objection to using qualitative interviews is that the interview contradicts the fundamental premise (the “principle of symmetry”) of ANT – that human actors should not be privileged over non-human actors. Interviews very much focus on human actors; on the interviewee and interviewer, and on how human actors create *meaning* – another concept that is difficult to work with in an ANT framework.

Furthermore, Latour (2005) argues that qualitative interviews, due to their researcher-driven approach, not only collect but filter the data, making them a less suitable method for ANT-inspired research. However, over the last decade or so, a number of studies have sought to apply ANT concepts to interview material, often with a focus on mapping interactions between human and non-human actors (Jóhannesson, 2005; Konrad, 2006; Tatnall, 2002, Blok, Jensen and Kaltoft 2008; Hart, 2015; Törrönen and Tigerstedt, 2018; or the authors of this chapter, Ravn, 2012; Demant, 2009). We place ourselves in this tradition but acknowledge that applying ANT concepts to interview data requires careful consideration. In the following section we discuss three particular challenges.

Three challenges in ANT-inspired analyses of interview material

In employing an interview-based methodological approach, it is crucial that the interview becomes a space in which to “engage the explored” (Despret, 2005) – a space in which interviewees are given the opportunity to articulate those elements in the networks that are important to them. In other words, the interview needs to adopt a relatively open and exploratory or experimental approach. This fundamental challenge must be addressed early on in the design phase of a study. We will present some of the ways in which we overcame this challenge in our own studies.

Although materiality and space often form part of interview data, the challenge from an ANT perspective is to describe these aspects of a phenomenon in sufficient detail to facilitate an analysis of how they are enacted in a specific network. While we refer to interview-based studies below, similar considerations also apply to ethnographic studies. In other words, observational studies do not automatically generate data that are suitable for an ANT-inspired analysis. If, for

example, you want to observe the role of alcohol in nightlife settings, it is not necessarily enough simply to follow the movements of young people in licensed venues and on the streets. You also need to consider issues such as how clubs (and streets) shape particular experiences of intoxication through the ways in which they are governed politically (by the licensing authorities) or how the club economy is linked to the sale of drugs.

Demant's analysis of young people's alcohol use (2009) serves as an example of how the study design is central for facilitating data on materiality. The research focused on 14–15-year-olds' first experiences with alcohol, particularly what they thought and had to say about who drinks what. Including actual alcohol products (beer, wine, alcopops etc.) as stimuli material in the focus group setting allowed the participants to touch the bottles, compare them and use them to recall specific stories. This exercise not only prompted the participants to share stories, but also enhanced their ability to enact other elements of the network relevant to their drinking than those identified beforehand by the researcher and allowed for an investigation of what these elements 'do' in the situation. Although the interview will always prioritise the human actor, it can also be a way to enact other elements.

In another study, Ravn developed a drawing exercise called a "maptask" (Ravn, 2012) to assist her in interviews designed to generate knowledge about private parties, where participant observation was difficult. During the interviews, it quickly became clear that the descriptions of the parties were often short and one-dimensional – the interviewees' primary concern was whether the party had been 'fun' or 'boring'. To learn more about the parties, an approach was needed that would encourage the participants to reflect on the parties and describe them in a different light – an approach that, in an almost ethno-methodological way, sought to "make the fa-

miliar strange” (Mannay, 2010). The solution was to ask the interviewees to “draw a party”. Specifically, the exercise required interview participants to first make a “floor plan” of the house or apartment where the party took place (including furniture, etc.). They were then asked to use arrows and numbers to indicate how the party-goers used the different rooms as the party progressed. This made both space and time, as dimensions, central parts of the data. While drawing, the participants also described the party in far more detail than before. Overall, the combination of the maptask exercise and the accompanying description afforded rich insight into the parties, including aspects such as time, space, materiality and sociality (see also Ravn and Duff, 2015). The analysis below will return to the analytical potential of this method.

The maptask exercise can be seen as one amongst a number of creative or innovative methods that are becoming popular in qualitative research. Other creative methods include the use of photos and other visual materials, music, objects and neighbourhood walks. This list is by no means exhaustive. Employing new methods in interview-based research can generate a wide range of data, and while the examples mentioned here tend to focus on meaning-oriented and affective analyses, methods that involve thinking outside the box of the traditional interview format offer a way to produce data suitable for ANT-inspired analyses.

A second challenge in ANT analyses concerns how we view the data material and what the informants tell us. One of sociology’s core tasks is to show how social structures operate in relation to human actors. ANT has a different starting point. One consequence of the principle of “following the actor” is that we cannot presume in advance that social structures exist and exert influence on the actors’ behaviour. This has to remain an open, empirical question. This brings us to one of the main points of contention between ANT advocates and more structurally oriented social scientists, including the heirs to Bourdieu. Latour makes the point that we must take

the actors' statements (for example in interviews) at face value, instead of explaining their statements with reference to factors outside of the data. For instance, we should not assume that social categories such as "ethnic minority", "working class" or "gender" are necessarily relevant for understanding a given situation. An ANT analysis requires that the relevance of these and similar categories is demonstrated in the data – that these categories 'act' in the data – before they can be assigned relevance in the analysis (see also Nielsen, 2010).

As touched upon earlier, the third challenge is presented by the shift in focus in ANT-inspired analyses from the symbolic to the material level. Scholars who are used to working within a more interactionist-oriented analytical tradition are trained to look for the symbolic meanings associated with different objects. One example of this could be symbolic consumption – a preference for cocaine rather than amphetamines may be rooted as much in the desire to show off wealth by distancing themselves from what drug users call "poor man's coke" as it is due to the effect and experience of the drug. An ANT analysis, by contrast, is more "flat" and "straightforward". It is not about how cocaine is incorporated into individuals' self-presentation. Rather, the overall drug experience depends on a number of elements, including the cocaine's specific (chemical) properties – specifically, its purity, which in turn depends on the user's position in a global network. This approach draws attention to how important elements outside of the users' control influence drug taking.

Analysis

In this section we illustrate how concepts from ANT can be used in an empirical analysis. The analysis is divided into three sub-sections, each centred around a particular concept, but these sections also form a coherent whole. Depending on the analytical interest and the nature of the

data, different ANT analyses will have different focal points. We draw on interviews with young people about clubbing and drug use, conducted as part of a larger study of young people, drugs and alcohol in Denmark (Järvinen, Demant and Østergaard, 2010). The study was undertaken in autumn and winter 2008 at five different nightclubs in various parts of the country. Taking inspiration from British researchers (Demant, Ravn and Thorsen, 2010; Measham and Moore, 2009), participants were recruited via a short questionnaire (Demant, Ravn and Thorsen, 2010). Respondents who said they had experience of taking drugs were asked whether they were willing to participate in an interview – and, if so, to provide their telephone number. A total of 53 young people (35 men and 18 women) took part in focus group interviews and individual and duo interviews. The interviews differ slightly depending on the format, but to varying degrees they all address five themes: a description of the nightclub as a space, a description of a night out, drug taking, knowledge of drugs and risk perceptions, and discussion of specific experiences in the clubs.³ As stated, the aim of this analysis is to demonstrate how the ANT perspective paves the way for new insights into young people’s drug use compared to the well-established research tradition described at the beginning.

ANT for analysis of non-human actors

Alcohol and drug research has been relatively quick to adopt ANT, as it offers very useful ways of conceptualising the effects of substances (Gomart and Hennion, 1999; Nielsen and Houborg, 2015; Demant, 2009). When extending an analysis to include a wider range of actors than just humans, a guiding principle is to frame the question as “what happened?” as opposed to “who

³Analyses of this data are found in Järvinen and Ravn, 2011; Ravn, 2012a, 2012b 2012c; Ravn and Demant, 2012; Ravn and Duff, 2015.

did it?” (Mol, 2002). In other words, the study begins by determining what *changed* or *was influenced* in the material, and only then consider what caused these changes, or in other words what attained significance as an actant. In the example below, Emma, a regular drug user, talks about her experience of taking cocaine.

Interviewer: When you take coke now, what’s it for – it’s not to keep you awake?

Emma: It’s just for fun.

Interviewer: For fun?

Emma: And also because you get so numb, your whole face... That’s a good thing if you like fighting, you know – you wouldn’t feel it if you got hit in the head!

Interviewer: Yeah, I can see that. [laughs]

Emma: I haven’t tried it, I hate fighting, but it’s a good thing, because you just get so numb... your whole skull. And if you put some [cocaine] directly onto your gums or your tongue, you go completely numb there too. You just get so numb... that sensation in your body.

Interviewer: In a good way?

Emma: Yeah, in a good way.

If we now ask “what happened?”, it is clear that the cocaine, as a specific substance, functions as an actor that leads to a specific form of intoxication that cannot be reduced to the drug’s symbolic meaning as a “luxury substance”. Emma finds cocaine relaxing and enjoyable because of its specific effect on her body. It creates a distinct bodily sensation, numbness in her face, and she finds that particularly enjoyable. The pleasure arises from the link between the cocaine,

Emma's body and the specific way in which she consumes the substance (applying it strategically, for example to her gums) and the spatial dimension of this, i.e., her flat, where she takes cocaine to chill out. Emma also explains how cocaine, by inducing numbness, has the potential to alter the bodily experience of fighting by diminishing the impact of being hit. However, it is important to point out that the materiality-oriented analysis prioritised by ANT can also be linked to more 'social' analyses. In this example about violence, factors such as values, social relations and friendships do not have less importance just because we *also* include non-human actors.

ANT as situated network analysis

Another separate task in an ANT analysis is to map *networks* of actants – that is, to not simply expand your perspective on who or what is acting, but also consider how those heterogeneous actants form part of a network. The network concept is used to focus on the *situation* as the analytical unit of interest. The aim is to identify all of the actants that make up the situation – a private party at which drugs are taken. It can also be viewed as a socio-material analysis, i.e., one in which we examine social aspects *as well as* aspects of space, time and materiality. The following example is based on the maptask exercise we described earlier. Let us begin by looking at a drawing from one of the interviews. As mentioned, participants were asked to draw the house or flat where the party was held, and to mark how they moved around during the course of the evening. One of the focus groups comprised four young men, Marius, Dan, David and Steven, who are good friends and often party together. They produced the following drawing.

Please insert Figure 1 about here

The drawing provides an overview of the different rooms in the flat, as well as the movements between them during the evening (arrows 1, 2 and 3). Note that as well as the furniture, the party-goers considered it important to draw the computer. The reason for this becomes clear during the conversation – Marius feels compelled to use the computer to check Facebook. His need to be on Facebook during the evening appears to be something that the group has discussed on earlier occasions, and something which has become part of the way they make jokes with each other. As David puts it, “Yeah, Marius went over to check Facebook because he is so ‘big’ [important]”. Later on in the interview, Marius feels the need to defend himself: “The flat was 46 sqm, so you could say that we were all pretty close together when that happened, so [all laugh] [...] so you are always close to each other, so even if someone is sitting here [points to the computer], and some people are sitting here [points to the sofa], and someone is standing here playing Guitar Hero, you can still talk to each other, and we all join in”. According to Marius – and the others back him up on this – his Facebook activity does not stop him taking part in the party. In fact, the opposite turns out to be the case. He reads out numerous Facebook posts – news, status updates, other people’s party photos – which become a source of entertainment for those around him.

In addition to the four young men and the drugs, which they mentioned earlier on in the interview, the computer used to access Facebook is therefore another important actant in the network. As well as bringing something new to the party as a situation, and contributing in a specific way to its sociality, Facebook also establishes a connection between the interviewees’ own party and the activities of other friends in other “time/space” units. Further, the flat, especially

due to its limited size, is an important material dimension of the party. Marius emphasises how the 46 sqm space implies a “closeness” that promotes a sense of community and of being part of the same situation, even if you are doing different things. In this example, the private party is, therefore, a network that emerges as a result of translation between the actors. The arrows also afforded detailed insight into how the party progressed over the course of the evening, and how time and space were linked, i.e. how certain rooms in the apartment (the toilet where the drugs were taken, the Facebook corner, etc.) were enacted as actants at different times during the evening.

ANT as an extended analysis of a network

The final example also focuses on networks but moves beyond the situation as the unit of analysis. This example illustrates how an ANT approach to risk management by young people who take drugs opens up a new understanding of the challenges associated with the topic. As we will show, young people’s drug use is woven into a complex network that extends beyond factors within their control. In the quote below, two young men, Laus and Kristoffer, with extensive drug use experience, discuss how they seek to manage their drug use.

Interviewer: How do you know what you’re buying?

Laus: Well, you can’t get it wrong, you just can’t. You know what it looks like, much of it, how it tastes, you never forget that [giggles]

Kristoffer: Plus, you know where you’re getting it from. You don’t just go out into the street and buy it from some random person.

Laus: No.

Interviewer: So it's about knowing your dealer...?

Kristoffer: Yeah.

[...]

Laus: If you buy something [drugs] from your friends, you either taste it, or maybe not taste, but smell it and try a little bit on your finger.

Interviewer: What if it's a pill?

Laus: If it's a pill then it's just ecstasy, you know?

Interviewer: Yes.

Kristoffer: Although you don't know that 100%.

Laus: No, no.

Interviewer: So you don't know what's in it?

Kristoffer: You know from [your] experience and from others' experiences. Plus, you can test pills. There's a thing called a z test that lets you test whether there is MDMA in it [the pill], and that means that you can see if it's from amphetamine or any other substance. But you can't say exactly what's in it, of course.

Interviewer: No, ok. But do you use those sort of tests or what? Or is it more the case that you –

Laus: No, you don't.

Kristoffer: Plus, I don't take ecstasy anyway.

Laus: [...] If you buy it from him [your dealer], he's probably sitting taking a line of it too, right? So, you know that if it's shit, he wouldn't be taking it himself and selling it.

Kristoffer: Some of the drugs we take, we know for sure that they're completely pure, they are imported and have never been cut [...].

Interviewer: Ok, so it's about building up your network?

Laus: Yeah, exactly. Let me put it this way, it really depends on where you are in the chain [user and dealer], whether you're number 300 [giggles] or 3.

Kristoffer: The longer you have been [part of the scene].

Based on this interview excerpt, we have identified the actors in the actor-network described by Laus and Kristoffer with regard to how they manage their drug use and the risks associated with it. This network is illustrated in Figure 2 below.

Please insert Figure 2 about here

Laus and Kristoffer clearly have extensive experience with the topic. When we map the range of actants that affect the way in which they manage their drug use and the associated risks, the result is a network that is complex in terms of both temporal and spatial aspects. It is important to stress that our analysis is based on the actants highlighted by the two interviewees, without any evaluation of the accuracy of their information, for instance in relation to the specific pharmacological tests. The key is to establish how different actors in the network are translated and become important in the two young men's risk management strategies. This strategy is not based

merely on their subjective (lay) relationship with the drug, but is the result of how experiences, reputation, tests, taste, etc., are incorporated into both local and global networks.

In sum, the network that emerges from this analysis not only includes aspects that are close at hand (where and how people buy drugs) – which we describe collectively as their practice in Figure 2 above – but also other, more remote elements, such as the accumulated knowledge of the drug scene and the drugs themselves. The network also extends beyond the quote, for example in the form of empirical knowledge gleaned from digital forums, the global drug market and the knowledge and encryption technologies used for online trading. This analysis has focused on how, via translation, the various elements become relevant to risk management. Bearing Figure 2 in mind, it is clear that, in this perspective, risk management is not a straightforward case of rational considerations, but rather a matter of navigating a complex network that extends beyond that in which the interviewees are directly involved. In that sense, an ANT perspective allows for a substantially different and more complex understanding of the risks and risk management strategies than other types of analyses might do in this field.

One question often asked about ANT analyses is: Where does the network stop? Any network will always be extensive, with many branches. There will always be other actants associated with the ones already described. We need to know some of these to understand how key elements are enacted. This makes it crucial that we define the limits of the network. In the analysis presented in this chapter, one of the key constraints is our choice of methodology – we cannot follow the drugs further than the relatively limited time/space horizon enacted by the subjects. In a “fully fledged” ANT analysis, this methodological constraint would not qualify as sufficient reason to limit the scope of the network. A more pragmatic understanding, and one that we also

use here, would be to a) acknowledge that the network is limited by the interview method; and b) be aware, therefore, of what ANT is capable of contributing to the analysis of the data at hand.

Conclusion

Our case study of young people and drugs in this chapter has shown how ANT-inspired analyses are particularly useful for drawing out the material aspects of a phenomenon. We have attempted to show how ANT widens our analytical focus to include non-human actors, while insisting that these have no significance *per se*, only when enacted in a particular network. We have also shown how the actual shape of the network imbues each actant with its specific significance. As a result, the physical effects of a substance can be included without being reduced (or stabilised) to a one-dimensional neurological or chemical process. As demonstrated by Emma, this allows us to conceptualise what is happening when users emphasise the fact that cocaine has certain effects on the body, depending on how and where it is taken. We have also shown that ANT is suited for the inclusion of spatial aspects into an analysis. Of course, it is possible to include space and time in, for instance, a symbolic interactionist analysis, but we believe that the reason why ANT analyses offer additional perspectives is that space and time are not just neutral backdrops or ‘contexts’ for social interaction, but constitutive of this as an element that is enacted in the network. The ability to combine space and time with physical and material aspects is what makes the ANT perspective distinct and an ideal choice for studies centred on these aspects. The examples mentioned earlier – Gomart and Hennion (1999) as well as Keane (2008) – both show how ANT-inspired studies always look at *some* network relations but not others. Keane’s study also highlighted how diverse data– as opposed to interviews alone – are useful in drug and alco-

hol research. For instance, inspired by Keane's study, it would be interesting to observe how cannabis is translated into very different forms of drugs in the complex network regulating medical and non-medical use, levels of THC, methods of consumption, etc. Following these translations would require a combination of interviews with recreational drug users, as well as a number of policy documents, drug analysis reports, etc.

Despite its name, it is important to recognise that ANT does not actually proffer a *theory* about the relationship between objects, people, space and time and so on. What it does offer is a relatively loosely formulated strategy for empirical analysis – it encourages us to conduct studies that are broadly defined to make it empirically possible to include in the answer to our research questions. It prompts us to answer how actors in a network relate to each other. This radical and empirical openness is often highlighted as one of ANT's strong points. However, it is also one of the difficulties that researchers have to learn to cope with when adopting an ANT perspective. The question of how far a network extends and at what point you have adequately described the relationships within it remains a concrete empirical and practical question that it is impossible to answer definitively purely by means of a well-established methodology principle. This is one of the points that need to be borne in mind when deciding on the strategy to adopt for a particular analysis.

As mentioned earlier, the explorative and open strategy inherent in an ANT approach to interview-based material comes with certain difficulties. The interviews that we drew on in this chapter sought to elicit elaborate and detailed descriptions of actual practices. While one example focused on “the social situation” and the local actor-network that shaped the party, in the final example the network extended beyond the specific time and space. This underlines Latour's point that the actants in a network do not need to be situated in the same physical time or space

(Latour, 2005: 166). It also suggests that one benefit of using interviews (and documents), as opposed to ethnographic observations, is that they allow us to identify actors not directly observable in the situation. Interview data make it possible to pursue the extent of a network beyond the local (see also Blok, Jensen and Kaltoft, 2008). The point is that the interview will always be *researcher-driven* and privilege human over non-human actors. Savage and Burrows (2007) argue that sociology has stalled in terms of new methodological developments because of the tendency to adhere to a handful of tried-and-tested instruments such as qualitative interviews and surveys. ANT as a tradition can be seen as constituting a response to this stasis, in that one of its key analytical tasks is to pursue any lines of enquiry that may emerge, *irrespective* of the methods used. As such, ANT challenges not only how we think about relationships between human and non-human actors, but also our methodological habits and ways of thinking and the ways in which we establish and pursue methodological lines of inquiry.

Key concepts

Actant

Use of the term actant instead of actor underlines the fact that networks consist of non-human as well as human elements. All actants are enacted (i.e., get their specific characteristics and properties) from the actor-network of which they form part.

Actor-network

A network is not strictly defined. It conceptualises elements that are linked and exist in relation to one another but without a defined centre. The “actor-network” is the network that is formed by the various actors. Networks often consist of both human and non-human actors (or actants) and translations are what make them dynamic.

Enactment

The concept of enactment describes the process by which a specific actant in a network acquires certain characteristics or potential. Rather than defining in advance which type of actor has the potential to act, ANT works this out on the basis of the empirical evidence. As such, we might say that in ANT the actor has no essential characteristics. One result of this approach is that multiple meanings may be attributed to the same actor depending on the relationships the actor is part of in a network.

Principle of symmetry

This concept refers to the obligation to ensure that we assign equal significance to human and non-human actors. Every effort must be made not to predefine actants.

Further reading

- Duff C (2012) Accounting for context: Exploring the role of objects and spaces in the consumption of alcohol and other drugs. *Social & Cultural Geography* 13(2): 145-159.
- Hart A (2018) Making a difference? Applying Vitellone's Social Science of the Syringe to performance and image enhancing drug injecting. *International Journal of Drug Policy* (61): 69-73.
- Lupton D (2012) *Medicine as Culture: Illness, Disease and the Body*: London: Sage.
- Marres N (2016) *Material Participation: Technology, the Environment and Everyday Publics*. NYC, New York: Springer.
- Mol A (2002) *The Body Multiple*. Durham, North Carolina: Duke University Press.
- Törrönen J and Tigerstedt C (2018) Following the moving and changing attachments and assemblages of 'addiction': Applying the actor network approach to autobiographies. *International Journal of Drug Policy* (54): 60-67.

References

- Becker HS (1963) *Outsiders: Studies in the Sociology of Deviance*. New York: Free Press.
- Bellis MA and Hughes K (2011) Getting drunk safely? Night-life policy in the UK and its public health consequences. *Drug and Alcohol Review* 30(5): 536–545.
- Block A, Jensen M and Kaltoft P (2008) Social identities and risk: Expert and lay imaginations on pesticide use. *Public Understanding of Science* 17(2): 189-209.
- Cochoy F and Mallard A (2018) Another consumer culture theory. An ANT look at consumption or how 'market things' help cultivate 'consumers'. In: Kravets O, Maclaran P, Miles S and Venkatesh A (eds.) *The SAGE Handbook of Consumer Culture*. Los Angeles: Sage, pp. 385-401.
- Cresswell KM, Worth A and Sheikh A. (2010) Actor-Network Theory and its role in understanding the implementation of information technology developments in healthcare. *BMC Medical Informatics and Decision Making* 10(1): 67-77.
- Demant J (2009) When alcohol acts: An actor-network approach to teenagers, alcohol and parties. *Body & Society* 15(1): 26–46.
- Demant J and Dilkes-Frayne E (2015) Situational crime prevention in nightlife spaces: An ANT examination of PAD dogs and doorwork. In: Robert D and Dufresne M (eds.) *Actor-network theory and crime studies: explorations in science and technology*. Routledge: New York, pp. 5-19.
- Demant J Ravn S and Thorsen SK (2010) Club studies: Methodological perspectives for researching drug use in a central youth social space. *Leisure Studies*, 29(3), 241-252.
- Demant J and Ostergaard, J. (2007) Partying as Everyday Life : Investigations of Teenagers' Leisure Life. *Journal of Youth Studies*, 10(5), 517-537.

- Despret V (2005) Sheep Do Have Opinions. In: Latour B and Weibel P (eds.): *Making Things Public: Atmospheres of Democracy*. Cambridge, MA: MIT Press.
- Gomart E and Hennion A (1999) A Sociology of Attachment: Music Amateurs, Drug Users. In: Law J and Hassard J (eds.): *Actor Network Theory and After*. Oxford: Blackwell/Sociological Review, pp. 220-247.
- Gomart E (2002) Methadone: Six Effects in Search of a Substance. *Social Studies of Science*, 32(1), 93-135.
- Greenhalgh T and Stones R (2010) Theorising big IT programmes in healthcare: Strong structuration theory meets actor-network theory. *Social Science & Medicine*, 70(9), 1285-1294.
- Hadfield P, Lister S and Traynor P (2009) 'This town's a different town today': Policing and regulating the night-time economy. *Criminology & Criminal Justice*, 9(4), 465-485.
- Järvinen M and Ravn S (2011) 'From recreational to regular drug use. Qualitative interviews with young clubbers'. *Sociology of Health & Illness*, 33(4), 554-569.
- Järvinen M. and Ravn S (2014) 'Cannabis Careers Revisited. Applying HS Becker's theory to present-day cannabis use'. *Social Science & Medicine*, 100, 133-140.
- Jayne M, Valentine G and Holloway SL (2008) 'Fluid Boundaries - British binge drinking and European civility: Alcohol and the production and consumption of public space'. *Space and Polity*, 12(1), 81-100.
- Jóhannesson GT (2005) Tourism translations: Actor–Network Theory and tourism research. *Tourist Studies*, 5(2), 133-150.
- Keane H (2008) Pleasure and discipline in the uses of Ritalin. *International Journal of Drug Policy*, 19(5), 401-409.

- Konrad K (2006) The social dynamics of expectations: The interaction of collective and actor-specific expectations on electronic commerce and interactive television. *Technology Analysis & Strategic Management*, 18(3-4), 429-444.
- Latour B and Woolgar S (1979) *Laboratory life: The social construction of scientific facts*. Beverly Hills: Sage.
- Latour B (1987) *Science in action: how to follow scientists and engineers through society*. Cambridge, Massachusetts: Harvard University Press.
- Latour B (2005) *Reassembling the social: An introduction to actor-network-theory*. New York: Oxford University Press.
- Latour B (2010) *The making of law: an ethnography of the Conseil d'Etat*. Cambridge: Polity Press.
- Law J (2009) 'Actor Network Theory and material semiotics'. In: Turner, B. (ed.): *The New Blackwell companion to social theory*. Oxford: Blackwell Publishing Ltd, pp. 141-58.
- Law J (2004) *After method: Mess in social science research*. London: Routledge.
- Lindsay J (2005) *Drinking in Melbourne pubs and clubs: A study of alcohol consumption contexts*. Melbourne: Monash University.
- Mannay D (2010) Making the familiar strange: can visual research methods render the familiar setting more perceptible? *Qualitative Research*, 10(1), 91-111.
- May C (2001) Pathology, Identity and the Social Construction of Alcohol Dependence. *Sociology*, 35(2), 385-401.
- MacLean S (2016) Alcohol and the Constitution of Friendship for Young Adults. *Sociology*, 50(1), 93-108.

- Measham F, Aldridge J and Parker H. (2001): *Dancing on Drugs: Risk, Health and Hedonism in the British Club scene*. London: Free Association Books.
- Measham F, Parker, H and Aldridge J (1998). The Teenage Transition: From Adolescent Recreational Drug Use to the Young Adult Dance Culture in Britain in the MID-1990s. *Journal of Drug Issues*, 28(1), 9-32.
- Measham F and Moore K (2009). 'Repertoires of distinction: Exploring Patterns of weekend polydrug use in local leisure scenes across the English night-time economy '. *Journal of Criminology and Criminal Justice*, 9(4), 437-64.
- Mol A (2002). *The body multiple: ontology in medical practice*. Durham & London: Duke University Press.
- Mol A (2010). 'Actor-Network Theory: Sensitive terms and enduring tension '. *Kölner Zeitschrift für Soziologie und Sozialpsychologie*. Sonderheft, 50, 253-269.
- Moore D (2002). 'Opening Up the cul-de-sac of Youth Drug Studies: A Contribution to the Construction of Some Alternative Truths', *Contemporary Drug Problems*, 29(1), 13–63.
- Nielsen B and Houborg E (2015) Addiction, Drugs, and Experimentation: Methadone maintenance treatment between "in here" and "out there" *Contemporary drug problems*, 42(4), 274–288.
- Parker H, Williams L and Aldridge J (2002). The Normalization of 'Sensible' Recreational Drug Use: Further Evidence from the North West England Longitudinal Study. *Sociology*, 36(4), 941-964.
- Pedersen W and Sandberg S (2013). The medicalisation of revolt: a sociological analysis of medical cannabis users. 35(1), 17-32.

- Prout A (1996). Actor-network theory, technology and medical sociology: an illustrative analysis of the metered dose inhaler. *Sociology of Health & Illness*, 18(2), 198-219.
- Ravn S (2012). *Intoxicated Interactions - Clubbers Talking about Their Drug Use*. PhD Thesis. Aarhus University.
- Ravn S and Duff C (2015). Putting the party down on paper. A novel method for mapping youth drug use in private settings. *Health & Place*, 31, 124–132.
- Savage M and Burrows R (2007). The Coming Crisis of Empirical Sociology. *Sociology*, 41(5), 885–899.
- Smith S, Kempster S and Barnes S. (2017). Up the ANTe: Understanding entrepreneurial leadership learning through actor-network theory. *Industry and Higher Education*, 31(2), 132-139.
- Stengers E (2000). *The Invention of Modern Science*. Minneapolis: University of Minnesota Press.
- Storper M and Scott AJ (2016). Current debates in urban theory: A critical assessment. *Urban Studies*, 53(6), 1114-1136.
- Sulkunen P (2002). Between Culture and Nature: Intoxication in Cultural Studies of Alcohol and Drug Use, *Contemporary Drug Problems*, 29 (2), 253-76.
- Tatnall AB and Burgness S (2002). *Using Actor-Network Theory to Research the Implementation of a B-B Portal for Regional SMEs in Melbourne, Australia*. Paper presented at the 15th Bled Electronic Commerce Conference eReality: Constructing the eEconomy, Bled, Slovenia.

Törrönen J and Tigerstedt C (2018) Following the moving and changing attachments and assemblages of 'addiction': Applying the actor network approach to autobiographies.

International Journal of Drug Policy (54): 60-67.

van der Wagen W and Pieters W. (2015). From Cybercrime to Cyborg Crime: Botnets as Hybrid Criminal Actor-Networks. *British Journal of Criminology*, 55, 578-595.

Weinberg D. (2013). Post-humanism, addiction and the loss of self-control: Reflections on the missing core in addiction science. *International Journal of Drug Policy*, 24(3), 173-181.