



HAL
open science

Researching social representations

Uwe Flick, Juliet Foster, Sabine Caillaud

► **To cite this version:**

Uwe Flick, Juliet Foster, Sabine Caillaud. Researching social representations. The Cambridge Handbook of Social Representations, 1, Cambridge University Press, pp.64-80, 2015, 10.1017/CBO9781107323650.007 . hal-04078502

HAL Id: hal-04078502

<https://hal.science/hal-04078502>

Submitted on 23 Apr 2023

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Researching Social Representations

Uwe Flick, Juliet Foster and Sabine Caillaud

Published In G. Sammut, E. Andreouli, G. Gaskell & J. Valsiner (Eds) *The Cambridge Handbook of Social Representations* (pp. 64-80). Cambridge: Cambridge University Press

Introduction

The issue of methods in social representations theory has proved contentious for some time, although we would argue that the focus of this discussion has shifted in recent years. During the 1980s and 1990s, much criticism centred on the supposed lack of focus on methods in early considerations of social representations, and an alleged methodological polytheism (Jahoda, 1988): some critics suggested that an 'anything goes' attitude to methods would only serve to weaken the theory, and argued that researchers needed greater guidance as to how to 'do' social representations research. Many of these concerns have been discussed at some length elsewhere (see, for example, Flick and Foster, 2008): as a theory, and not a method, the social representations approach aims to examine the ways in which individuals within social groups make sense of the world around them, and how these understandings change, develop, interact and so on. The methods that can be used in order to examine these research questions will, as in any social science research, vary, and must be considered carefully on each occasion in order to ensure that the most appropriate methods are used. Indeed, it could even be argued that there are different ways of defining social representations within the developing theory, and different aspects of representations on which to focus, and so multiplicity in methods and analysis is not only inevitable, but preferable (Bauer & Gaskell, 1999). This chapter illustrates this point.

Similarly, more work has now discussed the issue of approaching methods in social representations theory in more depth, providing the researcher with more guidance (see, for example, Bauer and Gaskell, 1999; Breakwell and Canter, 1993; Wagner and Hayes, 2005). However, concerns now focus more on problematic aspects of the use of particular kinds of methods, rather than on a lack of relevant discussion. For example, social representations studies continue to take both qualitative and quantitative approaches: should this be an issue of concern, or something to be encouraged? Another issue concerns the role of the researcher in social representations studies. Later in this chapter, we hope to address these issues, among others, in more depth.

Levels of Analysis: relating theory to method

Many studies now routinely consider the way that representations develop and circulate at different levels: Duveen and Lloyd (1990) argued that representations need to be considered at the three inter-related levels of ontogenesis, sociogenesis and

microgenesis, and consideration of the implications of this methodologically is important. Ontogenetic processes refer to the way that representations become active for the individual, as he or she 'grows' into existing representations within society. This is a common consideration in social developmental studies, and a strong focus in this area has been on representations of gender (e.g. Duveen, 2001; Duveen and Psaltis, 2008). Longitudinal studies might have particular relevance in the study of the development of representations in relation to particular identities: indeed, given the importance of development and change in the process of representation, there is wider scope for longitudinal studies in general (Bauer and Gaskell, 1999). Few studies take a longitudinal approach, although there are some notable exceptions (e.g. Brondi et al, 2012). Sociogenetic processes refer to the ways in which representations circulate and are active at the broader level of society, and how they develop, change, and interact with one another. A common way of attempting to access representations at this level is to engage in documentary analysis of some kind, perhaps including official policy documents, or the media. This approach is also often combined with an attempt to consider the more microgenetic processes within social representations, that is, the way in which representations are evoked and discussed at the interactional level, between individuals within a social group: interviews are often employed here, although there is also scope for other methods, including ethnography and experiments. These levels of analysis also relate to wider discussion of the aims of social psychological research, such as those discussed by Doise (1986) (see Abreu-Lopes and Gaskell, this volume, for more consideration of this issue).

In this chapter, we seek to examine some of the important questions that relate to methods and analysis in social representations research. We hope to do this through a close consideration of different methods that have been used, and the various issues pertaining to social representations that relate to these. The first section of the chapter will focus on qualitative analysis; although some of us (Flick and Foster, 2008) have argued elsewhere that this is particularly suited to social representations work, we then want to broaden this debate to include quantitative analysis, and consider the advantages of this as well. Finally, we will discuss mixed methods research, and the importance of triangulation.

It should be noted that we would like to avoid the common assumption that particular methods can be designated 'qualitative' or 'quantitative' all too easily. We would, instead, prefer to argue that an approach, and a form of analysis can be either qualitative, or quantitative, or mixed method. It is not the case that the interview, for example, is a qualitative method: the questions may, of course, be more or less structured, and the analysis may be more qualitative or quantitative, depending on the research questions. While we will include examples of particular methods in the different sections that follow, this important point should be borne in mind.

Qualitative analysis

Some Introductory Remarks

Although there were some qualitative aspects to Moscovici's (1961) first study using social representations theory, Herzlich's (1973) work on representations of health and illness is usually seen as the first purely qualitative study using social representations theory. In it, she analyses individual semi-structured interviews to examine the representations held by individuals in both urban and rural areas of France. In this early study, we see many aspects that will recur in social representations studies that employ qualitative analysis in the future: individuals are asked what they think, the researcher analyses their responses, compares them for similarities and differences, and suggests the presence of different themes, or representations, of health and of illness¹. In this section on qualitative analysis, we will firstly consider methods that rely on asking participants for responses, before moving on to consider other possible methods that might examine social representations from a qualitative perspective. We will also consider the all-important process of analysing the data qualitatively.

Asking People What They Think

At the heart of social representations theory is the idea that common sense has a value and a purpose, and that it is all too often denigrated in comparison with scientific understanding (Moscovici, 1984). In many ways, then, it is not surprising that one of the main methods that has been used qualitatively in social representations studies is the interview: if we value lay understandings about a topic, then it makes sense to ask an individual, or a group, what they think about that topic. This runs counter to some approaches within psychology, in which the research participant is seen as being less capable than the omniscient expert researcher (Spears, 1997). A wide variety of interviews has been employed in social representations studies, including individual interviews, as in Herzlich (1973), discussed above. Narrative interviews have also been very successfully employed: as Jovchelovitch and Bauer (2000) point out, there is a close relationship theoretically between the concepts of the narrative and of social representations, so this is not surprising. Some studies (e.g. Foster, 2007) draw on aspects of the narrative interview to examine social representations as participants tell their own stories: this is particularly useful where there is any sense of change or development, as in cases of illness or the development of identity. However, this might not always be the most appropriate interview format for studying other representations, and indeed the traditional structure of the 'narrative interview' (Flick, 2009) might prove too stringent for social representations studies: the suggestion, for example, that the researcher should not ask 'why' questions in the main body of the interview could be seen as limiting if we want to engage seriously with how

¹ Herzlich (1973) found three different representations of health ('health-in-a-vacuum', health as equilibrium and reserve of health) and three different representations of illness (illness as destructive, illness as liberator, illness as an occupation)

representations influence our action, and interaction, and provide us with a template for understanding and approaching the world. In a similar vein, but avoiding some of these disadvantages, is the episodic interview (Flick 2007, 2009), which has been used extensively by Flick (e.g. Flick and Röhnsch 2007 or Flick et al. 2012). Here the idea is to combine narratives of situations (episodes) with questions (e.g. about subjective concepts, causes and consequences of a phenomenon) in one interview. For example, most people remember their first day at school or a situation in which they decided whether to leave school or to continue attending. Such situations can be recounted in short narratives. At the same time these people will have a concept of what a good teacher is or what defines success and failure in school. While those concepts may be built on or influenced by the above situations, concepts can only be presented in answers to questions and not in narratives. The episodic interview combines both approaches in moving back and forth between stimulating situation narratives and question/answer sequences.

It has also been argued (Lunt and Livingstone, 1996) that the socially shared aspects of social representations make group interviews particularly useful. The individual interview might be less sensitive to capturing interactional aspects of representations which are socially shared and maintained, as well as contested and challenged. However, what constitutes a group is important. Bauer and Gaskell (1999) employed focus groups as part of their study of representations of biotechnology: they make the distinction between strong groups, who share a common goal, project and identity, and weaker groups, who might share aspects of a representation through some (but not all) aspects of a shared project. They use the example of mothers of young children, who share the project of raising healthy children, and so might share representations of genetically modified foods as a result of this. Careful consideration of segmentation in this way is an important part of methods in social representations: much of social science research divides participants by age, ethnicity, gender, socioeconomic status etc, yet there is no *a priori* reason to assume that all white female middle-class thirty-somethings will share a representation of a particular object (Foster, 2011). The social representations researcher needs to consider common projects and identities much more subtly so as to avoid imposing a structure onto a representation that might stem from existing assumptions (see also Gillespie, Howarth and Cornish, 2012).

However, it is also possible to find ways of bringing a lack of consensus to the fore in focus group interviews, either through deliberately including participants who hold diverse views (and therefore do *not* share a common project or identity) or through the researcher playing 'Devil's advocate' by introducing aspects of representations that go against those being evoked and discussed by the group. This strategy was used to good effect in Arthi's (2012) work on representations of mental illness amongst the Tamil community in Singapore: most participants did not volunteer information regarding

spirit possession unless it was introduced by the researcher as a controversial topic, but resulting discussion was often highly informative, and revealed more belief in paranormal explanations for experiences/behaviour labelled as mental illness.

Using the moderator/interviewer in this way can also bring to the fore taken-for-granted aspects of consensual representations, in other words the things that a group may not mention, as they are accepted as matters of fact, or ontological reality (Marková, 1996). This touches on the wider issue of the role of the researcher in social representations studies, by no means limited to qualitative analysis in social representations research: later in the chapter the importance of understanding the process of the choice and interpretation of quantitative analysis, and the researcher's role within this, will also be stressed. However, it has frequently been assumed that qualitative analysis requires closer attention to reflexivity, given the researcher's particular role in the elicitation and subsequent analysis of data. This is perhaps debatable, but it is certainly the case that designing a project, developing an interview guide and then analysing the resulting data involves the researcher's own perspectives to a significant degree (Hodgetts, Drew, Sonn, Stolte, Nikora and Curtis, 2010). The researcher must be able to recognise how he/she is embedded in a network of representations, and to bear these in mind while approaching those of others. Presenting oneself to participants as a 'learner' keen to understand their perspectives and ideas can work well in some cases (again, see Foster's [2007] study of mental health service clients' understandings of mental health problems) but this may not always be appropriate. In some cases, researchers may be considered to be 'insiders', or positioned in a particular way by participants, which may affect their responses: Rose (2003) found in a review of studies looking at attitudes towards Electro-Convulsive Therapy that much greater satisfaction was reported if clinicians asked the questions, while research conducted by service user organisations or independent researchers engendered much more ambivalence and dissatisfaction. This could be even more relevant in interview situations when the participant is face-to-face with the interviewer and aspects of his/her identity are particularly salient.

Another significant issue is whether the researcher can (or should) have any role in changing the situation which is being researched. This is complicated, since social representations theory explicitly moves away from the idea of one 'correct' version of understanding, and the notion that any other understandings are therefore faulty and in need of correction. Bauer and Gaskell (1999) suggest that the researcher's role should be, for the most part, disinterested. However, it is also clear that there is a potential for social representations researchers to engage more critically with representations, working with communities to challenge stigma (Campbell and Jovchelovitch, 2000; Howarth, Foster and Dorrer, 2004).

Moving beyond What People Say

Qualitative analysis of interviews of different kinds can clearly be useful in social representations studies. However, there may be limitations to this, from a representational point of view. In many places, different theorists discuss the ways in which representations are not merely present in people's heads, nor only manifest in what they say (e.g. Moscovici, 1984). Instead, representations are present in actions and interactions within daily life, and are also evident in the ways in which we organise our lives, our institutions, our rituals and so on (ibid). If we rely purely on self-report and discussion in the form of interview data, are we easily able to access this representational level? There are two possible responses to this problem: firstly, we can address the way we approach interview data, and secondly, we can move beyond interviews. In the case of the former, we must remember that interviews should not only be used as a way of accessing what people say, but also of accessing how they think, what they fail to say, what they cannot say, and so on. Analysis, which will be discussed later in this section, must move beyond the 'facts' of what is being said and we must employ our skills as researchers to enable this (Condor, 1997), or we risk what Bauer, Gaskell and Allum (2001) have referred to as 'empiricism by proxy'.

There has been interesting discussion on representations that are not always conscious (Joffe, 1999, 2003), questioning whether all aspects of a representation are accessible to research participants. A paradigmatic (and much-quoted) example of this comes from Jodelet's (1991) study of representations of madness in a French community in which psychiatric patients live as 'lodgers' with local families: here, although the family participants overtly rejected the idea that mental illness was contagious in any way, they organised their lives around rituals of separation to avoid contact between bodily fluids. As in Joffe's (1999) work, the need to construct some aspects of representation as 'Other' in order to protect the Self (and therefore not see oneself as being vulnerable to mental illness, HIV etc) was paramount. However, it is also possible that participants may be fully conscious of aspects of their representations of a particular issue, but not prepared to mention these overtly, however creative the researcher is in his/her attempts to elicit them. This could be the case if we consider representations which might be stigmatising of particular issues or groups: social desirability bias, or a fear of seeming discriminatory might mean that some participants refrain from saying what they privately believe, and might even publicly demonstrate in other settings.

It is for these reasons that finding other ways of collecting data which can be qualitatively analysed is important. Ethnographic work has been particularly fruitful in social representations studies: again, returning to Jodelet's (1991) study, an ethnographic approach that combined informal discussions and observations of the community with detailed analysis of documentary material, and semi-structured interviews, provided a very rich set of data from which to examine the ways in which the foster families, professionals and lodgers interacted in different places (homes,

public spaces and so on) and the way that the entire community was organised. This allows close consideration of the ways that representations are enacted, and communicated and developed both in non-verbal communication and also in institutional practice. Other social representations studies have also taken an ethnographic approach: in Foster's (2007) study, using this approach not only allowed access to some of these less linguistic and more non-conscious aspects of representations of mental ill health, but also allowed for a greater understanding of settings which are often hidden from the general public (here, three mental health services). Participant observation can also allow for greater rapport-building with participants, and can allow the researcher to generate hypotheses and theories about what they observe, which can then be discussed with participants, and altered as necessary. In cases where participants may have problems expressing themselves verbally, or concentrating for longer periods (for example, because of age, illness or medication), this method has further advantages.

Documentary analysis can form an important part of ethnography, but is also a useful stand-alone method in social representations study. The analysis of media representations has been particularly common for some time, with studies not only focusing on the text of articles, but also on pictures, and on moving images in television and in film (Rose, 2000).

However, to return to the point made at the very start of this chapter, the most important point relating to the use of any of these methods is the way in which the resulting data are analysed. Interviews, observations and documents can all be analysed quantitatively if that is best suited to the research questions, and ways of approaching this will be discussed below. However, the qualitative analysis of such data also needs discussion. In recent years, a number of high-profile papers have been published that seek to clarify the process of qualitative analysis, especially thematic analysis (e.g. Attride-Stirling, 2001; Braun and Clarke, 2006); a wide variety of textbooks now also detail the process of coding and analysis in more depth (e.g. Flick 2009; Sullivan, Gibson and Rile, 2012). These works have been enormously important in providing researchers with a stage-by-stage guide on how to approach analysis, something which had perhaps been previously portrayed as a rather mystical and opaque process. Elsewhere we have commented on the utility of thematic analysis in social representations research (Flick and Foster, 2008): a close consideration of the themes in any data (and the relationship between them) is an important step in considering the representations of any issue. However, Provencher (2012) has warned against fetishism when it comes to thematic analysis in social representations studies: she argues that we should not be lulled into assuming that following a number of different stages of coding will automatically lead to understanding the social representations of a particular concept. She points out the importance of *sociological imagination* in moving beyond the basic themes that might be considered in any data

if we are truly to consider social representations. In this way, we need to be able to make links, consider absence as well as presence (Gervais, Penn and Morant, 1999), suggest why such patterns might be in evidence, and develop hypotheses about social understanding in action and interaction. It is also the case that thematic analysis might not be sufficient, or relevant in all cases. As we discuss above, focus groups are particularly useful for considering the communicative practices involved in the development and maintenance of social representations, and a form of analysis that can take this interaction into consideration, such as analysis from a more dialogical perspective may be more appropriate (see Marková, Linnell, Grossen and Salazar-Orvig, 2007, and Caillaud and Kalampalikis, 2013, for comprehensive discussion of this). Barbour (2014) and Halkier (2010) suggest integrating a conversation analysis approach to analysing how things are said in a focus group and in particular to analyse how the interaction evolves, how turn-taking is organised in the group and what this reveals about group dynamics. Developing this approach allows Lunt and Livingstone's (1994) idea – that focus groups can reveal how social representations are constructed and changed in interactions – to be put into practical terms.

Of course, advocating use of one's sociological imagination should not be equated with an 'anything goes' attitude, since the researcher must remain grounded in the data, and aware of the different ways in which the quality of the analysis (and overall research) can be maintained. We return to this in the final part of this chapter, but before that, let us move on to consider quantitative analysis of data, and its relationship with social representations research.

Quantitative Methods

Some Introductory Remarks

We will use the notion 'quantitative methods' for analytical tools based on statistical inferences. They can be used to analyze both quantitative and qualitative data. These tools are inviting: they provide a procedure and give the analysis a 'scientific aspect'. However the efficiency of statistical software – where using one command gives results – should not blind us and we should avoid using these procedures as a 'black box'.

We must keep in mind some of the assumptions of the social representations approach when choosing an appropriate tool. First, society thinks (Moscovici, 2001) and thinking always implies dialogicality (Billig et al. 1988; Markova, 2000). In this sense, social representations are not fully consensual: debate is necessary, tensions exist and consensus only makes sense as "functional consensus" (Wagner, 1994). This is a consensus based upon a common language and a common argumentative level of immediate social interaction (Voelklein and Howarth, 2005). Therefore, it may not make sense to calculate means and compare them when using a social representations approach, and the standard deviation may be more useful.

However, we do not want to reject all social representations studies that employ means calculations. For example, sometimes people prefer a consensus (even a feeble one) to dissent (Moscovici, 1994), making the mean informative. Obviously this statistical description alone does not provide an interpretation as to *why* a feeble consensus exists and the researcher still has to give meaning to the result he/she observes (but this is another problem).

The start of every quantitative analysis is a data table: however, methods differ as to how this table is regarded, and approached. Reflexivity implies knowing what the software does (and does not do). 'Knowing how it works' enables the researcher to choose the procedure appropriate both to the data and to the theoretical approach. Our aim here is not to give an exhaustive overview of 'relevant' quantitative methods but to outline, using some examples, how the same methods can be used differently according to the approach. However, the examples will demonstrate that the relevance of the methods lies in their ability to throw light on tensions structuring the social representations of an object.

Factor Analysis and Different Ways to Use it

Generalities

Factor analysis is a set of techniques for determining how variables are linked together and/or are linked to individuals and/or to variables describing these individuals and/or to the context of data production. Factor analysis does not take into account means and variance, but outlines similarities and differences. Despite some differences, all the techniques follow a common general procedure. From a data table (with lines and ranges), two scatter plots are constructed: one represents the lines, the other represents the ranges. These two scatter plots are projected onto a succession of orthogonal axes so that the largest proportion of the overall variance is explained. Each factor explains a proportion of variance: the first one explains the largest; the second will explain the next largest one that is not explained by the first factor and so on. Some variables load most highly on each factor. So the factors differentiate the variables that are opposed to one another. Factor analysis allows us to make some assumptions about the tensions organizing social thinking.

Beyond these generalities, the different techniques (Principal Component Analysis, Correspondence Factor Analysis, Multiple Factor Analysis etc.) differ through the table used as the point of departure. For example, Principal Component Analysis uses a table which crosses individuals with quantitative variables (e.g. their age, or their weight or their attitudes measured by a Likert scale). Correspondence Factor Analysis, in contrast, uses a table where qualitative variables are crossed (a contingency table, indicating frequencies). Therefore in this method, we lose the individuals but we have the link between different variables. Finally, Multiple Factor Analysis, the most complex procedure, uses tables which cross qualitative and quantitative variables and

individuals. Factor analysis offers some important opportunities: for example, factorial scores can be used as a new variable to compare individuals or groups. Moreover some additional variables can be projected in a second stage on the factor plane.

Organizing Principles of Individual Differences

Doise, Clémence and Lorenzi-Cioldi (1993) propose a specific approach to social representations and highlight which method fits each step of the research procedure. Probably the most famous study is that on human rights (Doise, Spini & Clémence, 1999): here, the authors make the assumption that objectification is defined as common views about a given social issue. Moreover differences in individual positioning are organized and the variations between individuals are anchored in cultural symbolic realities, social psychological experiences and beliefs. Campbell, Muncer & Coyle (1992) used a similar procedure without referring to the notion of “organizing principles”. They examine social representations of aggression and suggest that women subscribe to an expressive model of aggression (focused on intra-psychic determinants of aggression and loss of self-control) whereas men subscribe to an instrumental model of aggression (aggression as an attempt to gain control over a situation). To test this hypothesis, a questionnaire with bipolar items was administered to men and women. Each item could be answered using an instrumental or an expressive model of aggression. Factor analysis was conducted on the answers to these items. The first factor refers to the dichotomy instrumental/expressive; the second factor is defined by items differentiating private and public aggression. Finally, the third factor appears to be a guilt factor. The analysis therefore reveals some principles organizing social representations of aggression, which can be interpreted as tensions structuring the discourse on aggression. Having conducted and interpreted the factor analysis, the authors search for any link with gender (note that gender is not introduced in the factor analysis) and validate their hypothesis. However, at this stage, gender differences are not explained, they are only observed.

Outlining the Role of Context

However, factor analysis can be used to follow an aim other than looking for organizing principles of individual differences. Some experimental studies using the central core approach analyze their data using factor analysis (Flament, Guimelli & Abric, 2006; Lo Monaco & Guimelli, 2011). Their aim is not to highlight the central nucleus but to show that the same social representation inspires different discourses in various contexts.² In this way, the hypothesis that these answers are organized through a one-dimensional structure is tested. Using principal component analysis, it means that a horseshoe phenomenon (or Guttman effect) exists. This phenomenon, which is not at all systematic, is observed when the two axes explain more than 90% of the variance. The first axis often opposed extremes conditions (also called a size effect) and

² This is relevant for the central nucleus approach which postulates that the central core of the social representation is stable.

the second axes opposed the extreme cases and the intermediate cases. Graphically, the scatter plot has a parabolic form (like a horseshoe).

To illustrate this effect, we will use the results presented by Lo Monaco & Guimelli (2011). This experimental study concerns social representations of wine in the French context. Despite its cultural aspect, a social debate around wine (healthy and socially positive versus dangerous) exists. The interviewer first asked the respondent if he consumes wine, before identifying himself as a consumer or a non-consumer. So, four experimental conditions of data collections are used: a non-consumer asking a consumer, a non-consumer asking a non-consumer, etc. Then, subjects were asked to rate ten propositions concerning various aspects of wine. A principal component analysis was conducted (on a table linking the context of data production and items)³ and shows a horseshoe phenomenon.

One of the factors opposes non-consumer and consumer and shows that their answers are more extreme when the interviewer shares the same identity. Also some aspects of social representations are "masked" or "un-masked" depending on the context. For example, non-consumers rated wine as more dangerous when the interviewer presented himself as a non-consumer too. If the interviewer presented himself as a consumer, these aspects were "masked". This echoes the earlier discussion on the role of the interviewer. Therefore, we are tempted to say that here factor analysis is used to access *organizing principles of contextual positions*.

Hierarchical Analysis and the Alceste Method

Generalities on cluster analysis

The social representations approach also often employs hierarchical cluster analysis. Comparing this procedure to factor analysis, we suggest – even if this is a simplification – that cluster analysis only looks at the data table in one way, comparing the lines or comparing the ranges. As with factor analysis, different methods can be employed. Hierarchical cluster analysis can be ascendant: the first stage is to measure the proximity or the similarity between the variables (usually the squared Euclidean distance). Then, the variables are grouped together to form a cluster: the two variables having the shortest distance are grouped together, and then the next variable having the shortest distance with this cluster is associated. An ascendant hierarchical cluster analysis was conducted for example by Doise, Spini & Clémence (1993) in their study of representations of human rights to group together articles for which similar responses' patterns were observed.

Another procedure is descending hierarchical cluster analysis. Here, at the beginning the variables are all in the same class, and they are then divided into

³ Note that the PCA is not conducted on the table linking individuals and items but experimental conditions and items. This is coherent with the experimental approach: answers are considered as dependent from the conditions, not from the individuals.

different classes: the variable with the highest distance is retrieved, then the second one and so on. In fact, these two methods differ in the way the variables are considered at the beginning: a whole that has to be divided in classes or, alternatively, elements which should be grouped together into clusters. But both methods finally reveal a dendrogram.

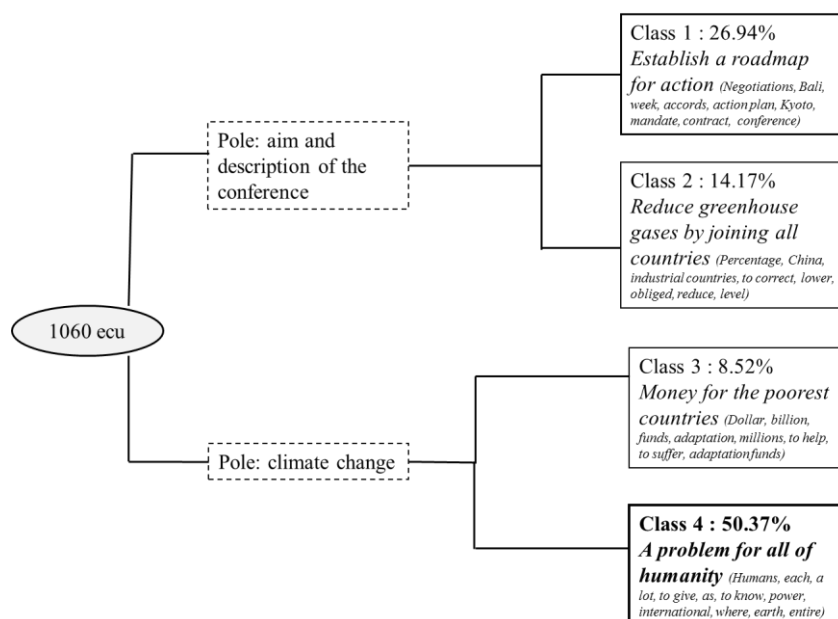
The Alceste Method

The Alceste method is based on a descendant hierarchical cluster analysis and is often used in social representations research (Klein & Licata, 2003; Lahlou, 2001, Kalampalikis, 2003). Alceste is a method of statistical lexical analysis which seeks "to investigate statistical similarities and dissimilarities of words in order to identify repetitive language patterns" (Kronberger & Wagner, 2003). First, the text is decomposed into group of words or phrases called elementary contextual units (ECUs) and the software reduces the words to their root (plurals, conjugations, etc.). Next, a contingency table indicates the presence versus absence of each reduced form in each ECU. Then a descendant hierarchical cluster analysis is performed on the table. The result is a hierarchy of classes, of "lexical universes" present in the corpus. The link with illustrative variables is calculated afterwards (for example: who is speaking? when was a discourse held? etc.). When interpreting the classes of words obtained, we must remember that they stem from the same text but were divided because of differences between them. These differences lead the interpretation.

In fact, the Alceste method is not, initially, interested in the meaning of words. The method looks only for the organization of the discourse and therefore enables the researcher to study pragmatic aspects of social representations (Moscovici & Kalampalikis, 2005). Combined with a more semantic analysis, this method enhances the interpretation of the data.

Caillaud, Kalampalikis & Flick (2012) used the Alceste method in this way in a study of social representations of the Bali climate conference in French and German media. The different classes were interpreted as "references spaces and anchoring categories". We will take as an example only the German results.

The corpus was divided into four classes as shown in figure 1. The titles are proposed by the researchers themselves to designate the classes. The most representative words of each class are in brackets.



Classes 1 and 2 refer to political discourses about the conference itself. In class 1, the discourse is concrete and local (the aim of the conference) whereas in class 2 the discourse refers to a more global aim (to reduce greenhouse gas production). Class 3 and 4 both refer to climate change and its consequences for humanity. Again, the opposition between concrete and general perspectives structures the discourse (all humanity versus poor countries).

In this sense, in Germany, the conference is anchored in political and human categories linking both global and local dimensions.

Also, this procedure searches for tensions organizing the discourse about an object by paying attention to the co-text (which words are often associated together). The Alceste method also enables the researcher to take into account the context of discourse (Moscovici, 1994). Klein & Licata (2003) analyzed the speeches from Patrice Lumumba during the decolonization of Congo using the Alceste method. They consider some illustrative variables (e.g. political and historical context, audience). The results were interpreted with reference to the historical context and the authors show how the speeches of Patrice Lumumba contribute to the social change.

Despite a growing interest in Structural Equation Modeling (SEM) in social psychology, only a few studies using social representations try to use this method. SEM can be used in two ways: a) to test the relationships between different variables or b) to test the relationships between observed variables (what we measure) and latent variables (what we want to measure). Friestad, Rise and Roysamb (1999) use SEM to show that social representations about smoking mediate the effect of smoker status on attitudes toward smoking restrictions. Alternatively, Carugati, Selleri and Scappini (1994) propose using SEM to underline the way social representations are structured (how different concepts are linked together in common sense and forms theories).

Once more, the same methodological tool is used in quite different ways. However, we can question why SEM is not used as widely by social representations studies as it is more generally in social psychology to try to 'make sense of absence'. Perhaps the implicit idea of SEM to test 'causal relationships' does not fit well with the epistemological assumptions of social representations: for example, does the smoker status cause the social representations, or do social representations of smoking cause smoking behaviours and lead to smoker status? Social representations theory turns to a dialogical relationship between identity and social representations (Markova, 2007) which go beyond causality. Nevertheless, we can hypothesise that some relevant use of SEM will be developed in future research. This seems plausible especially as SEM offers numerous possibilities and only tests causality if inputs variables refer to an experimental design.

The quantitative methods we have presented here share the same perspective. They propose some answers to the following research questions: what tensions structure the data? What is opposed? What is similar? What goes together? How does the context structure the data? There is no doubt that these questions are relevant within social representations theory. However, the different examples we have presented also outline the importance of interpretation of the results and also of the data – as relevant indicators for the social representations in the focus of the concrete study. Moreover, we show how the same method can be used to follow different aims. Ultimately, these are only tools we have to use with reflexivity to enhance our understanding of social phenomena.

Triangulation and Mixed Methods in the Study of Social Representations

As mentioned at several points in this chapter, studying social representations often needs more than one methodological approach due to the complexity of this phenomenon. Two major methodological concepts (and discussions) are relevant in such multi-method approaches.

Triangulation

Triangulation was introduced to social research by Denzin (1978). It refers to combining several approaches in the study of a phenomenon or of several aspects of it (e.g. knowledge and practices as parts of a social representation of an issue). The original idea of cross-validating results by a triangulation of methods was initially criticized (see Flick 1992 as an overview) and soon replaced by the aim of seeing phenomenon from different angles and thus elucidating its diversity or complexity. Denzin mentioned triangulation on four levels – of different *researchers*, of various sorts of *data*, of different *theories* and methodological triangulation: the combination of two (or more) independent methods (*between methods triangulation*), which can also consist of two qualitative methods. The alternative is *within methods triangulation*

when several approaches are combined in one method (see the episodic interview discussed above as an example for this). Triangulation refers to combining several perspectives in a systematic way (Flick 1992) and thus goes beyond confirming results. Often triangulation produces complementary results, highlighting different aspects of a phenomenon and differences between what people say and what they do, for example. In studying social representations, triangulation can be fruitful in various ways.

If social representations of a phenomenon include the views of various groups we may need to use several methods for studying it. To examine a phenomenon like the utilization of professional health by homeless adolescents, for example, we can first interview the adolescents using with the episodic or narrative interview. To understand the processes and barriers influencing whether the adolescents use services or are reached by these institutions more fully, it may be necessary to integrate service providers' views on the phenomenon. For this purpose, expert interviews (about the target group, needs, barriers, cooperation of services etc.) should be a second methodological approach. If the processes being examined (health problems and use of services) also call for the study of practices and discourses in the target group (homeless adolescents and their peers in open spaces), an ethnographic approach using participant observation may be necessary. Thus the methodological triangulation in this example (see Flick 2011a; Flick and Röhnisch 2007) addresses three levels of the phenomenon (adolescents' knowledge; their practices; expert knowledge) with three methods. A theoretical triangulation complements methodological triangulation in this example, when the perspective of social representations is complemented by the theoretical approach of "social problems work" (Holstein and Miller 1993) focusing on the practices of identification and classification of social problems in the interaction (or lack of it) between clients and service providers (see Flick 2011a). Thus, triangulation – in this example of multiple qualitative methods – can open a more comprehensive empirical approach to studying the social representation of a complex phenomenon. The triangulation of several theoretical perspectives can provide a more comprehensive theoretical ground for combining these methods. Of course the methodological triangulation can also include qualitative and quantitative methods.

Mixed Methods

In recent decades a discussion about using mixed methods has developed and attracted much attention (see for example Creswell and Piano Clark 2010 and the *Journal of Mixed Methods Research*). This discussion has a strong focus on combining quantitative and qualitative methods and thus fits into this chapter in bringing together both approaches we discussed separately in the first parts. However, this approach has a number of limitations (see Flick 2011a). First, its focus is on (only) combining qualitative and quantitative methods and not, for example, on combining several qualitative methods. Secondly, we see a concentration on methods and lack of

concern for their theoretical backgrounds and potential differences. Thirdly the use of the concept of “paradigms” for describing qualitative and quantitative research neglects differences in the ways qualitative research is done in different contexts (say narrative research and ethnography). As we argue elsewhere in more detail (see Flick et al. 2012), a mixed methods approach of combining quantitative and qualitative research can be integrated in a more complex approach of triangulation to a complex phenomenon. In a study on the social representations of sleeping problems of nursing home residents and their treatment, we applied a systematic approach by focusing on an in-depth case study. Two sources of quantitative data (assessment of residents' status and medication prescribed by physicians) and several contextualized qualitative approaches—one that focuses on physicians' interpretive patterns concerning their prescription practices, and another that looks at nursing staff and nursing home residents' attitudes toward sleep medication—were triangulated. Here, the quantitative approaches demonstrate first the relevance of the problem (sleeping problems in their frequency, distribution and link to other medical problems) and how often medications are prescribed for treating them. The qualitative approaches showed the representations of the problem held by staff and residents. The combination of approaches revealed that physicians' statements in interviews, for example, made us expect a much higher prescription rate than became evident in analyzing the actual prescription rates. Thus the triangulation showed differences between the levels of knowledge and practices as two levels of the social representation of this phenomenon.

This example shows, as do several others, that triangulation is a substantial addition to the methodologies for studying social representations. In particular using the concept to address several levels of social representations – such as knowledge and practices or states and processes – allows us to draw a fuller picture of an issue and its representations. By linking several approaches, which also means linking several types of data, and in assuming that these approaches are indicators for the social representations under study, a specific form of interpretation is possible – of the data and of the findings produced by the combination of methods.

Concluding remarks

As this chapter shows, a range of qualitative and quantitative methods are available for empirical studies of social representations, which can be used as stand-alone methods or in combination. All of these methods have to be considered for their appropriateness to the issue being studied. None of these methods has been designed exclusively for studying social representations. For all of them, a number of decisions have to be taken by the researchers: how far can data collected with each method be seen as an indicator of the representations that shall be studied? How far can differences between certain subgroups in the study be seen as an indicator of a *social*

representation? Data as well as statistical or other forms of results cannot per se be equated with a social representation. This link is a theoretical inference and thus an interpretation which the researchers have to draw. Which method should be used and whether methods should be combined (and which methods) should be decided with respect to the phenomenon under study. Whose representations, and which levels of the social representation of a phenomenon will be studied are the relevant points of reference for methodological decisions, rather than a general preference for qualitative or quantitative research or for combining both. In the end all methods and their theoretical backgrounds are tools for making empirical research fruitful for understanding social representations.

Inevitably, this chapter has not been a comprehensive discussion of all possible methods, but as the selection of methods presented shows, the toolkit for empirically studying social representations is substantial. This should allow researchers to find the 'right' method for the issue they want to study within the framework of social representations. However, the more methods are available and prove successful in the study of social representations, the more researchers face the need to take the decision regarding a method that is appropriate both for the issue and for the approach of social representations. This brings the general question of the indication of methods back into focus: how should researchers decide which methods to use (see Flick [2009] for qualitative research and Flick [2011b, Chapter 6] for quantitative and qualitative research, and Flick [2007] for triangulation studies)? This is even more relevant in a field like social representations, which is not tied to any specific methodological approach, but within which basically all methods in psychology and the social sciences have been used in one way or another, as Breakwell & Canter (1993) have already stated. In this sense, our chapter aims to give an orientation to the variety of methodological approaches to social representation research by discussing prominent examples.

References

- Abreu-Lopes, C., and Gaskell, G. (this volume) Social representations and societal psychology.
- Arthi (2012). Representing mental illness: a case of polyphasias. *Papers on Social Representations* 21, 5.1-5.26.
- Attride-Stirling, J. (2001). Thematic networks: an analytic tool for qualitative research. *Qualitative Research* 1(3) 385-405.
- Barbour, R. (2014). Analyzing focus groups. In U. Flick (ed.) *The SAGE Handbook of Qualitative Data Analysis*. London: Sage (in press)
- Bauer, M. and Gaskell, G. (1999). Towards a paradigm for research on social representations. *Journal for the Theory of Social Behaviour*, 29(2), 163-186.
- Bauer, M. W., Gaskell, G., & Allum, N. A. (2000). Quality, quantity and knowledge interests: avoiding confusion. In M. W. Bauer and G. Gaskell (eds.), *Qualitative researching with text, images and sound* (pp. 3-17). London: Sage.

- Billig, M., Condor, S., Edwards, D., Gane, M., Middleton, D., & Padley, A. (1988). *Ideological dilemmas: a social psychology of everyday thinking*. London: Sage Publications.
- Braun, V. and Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3 (2). pp. 77-101.
- Breakwell, G. and Canter, D. (eds.) (1993). *Empirical Approaches to Social Representations*. Oxford: Clarendon Press.
- Brondi, S., Sarrica, M., Cibin, R., Neresini, F. and Contarello, A., (2012). The Chiampo river 30 years later: long-term effects of environmental regulations on social representations. *Journal of Community and Applied Social Psychology* 22(4) 283-299.
- Caillaud, S. and Kalampalikis, N. (2013), Focus Groups and Ecological Practices: A Psychosocial Approach. *Qualitative Research in Psychology*. (**electronically available as: DOI:10.1080/14780887.2012.674176**)
- Caillaud, S., Kalampalikis, N., and Flick, U. (2012). The social representations of the Bali climate conference in French and German media. *Journal of Community and Applied Social Psychology*, 22, 363-378.
- Campbell, A., Muncer, S., and Coyle, E. (1992). Social representations of aggression as an explanation of gender differences: a preliminary study. *Aggressive Behavior*, 18, 92-108.
- Campbell, C. and Jovchelovitch, S.J. (2000). Health, community and development: towards a social psychology of participation. *Journal of Community and Applied Social Psychology*, 10(4), 255-270.
- Carugati, F., Selleri, P. & Scappini, E. (1994). Are social representations an architecture of cognitions? A tentative model for extending the dialog. *Papers on Social Representations*, 3 (2), 1-18.
- Condor, S. (1997). 'And So Say All of Us?: Some Thoughts on "Experiential Democratization" as an Aim for Critical Social Psychologists', in T. Ibáñez and L. Iñiguez (eds.) *Critical Social Psychology*. (pp. 111-146). London: Sage.
- Creswell, J. and Piano Clark, V. (2010). *Designing and Conducting Mixed Methods Research*. London/ Thousand Oaks, CA/ Dehli: Sage.
- Doise, W. (1986) *Levels of Explanation in Social Psychology*. Cambridge: Cambridge University Press.
- Doise, W., Clémence, A., and Lorenzi-Cioldi, F. (1993). *The quantitative analysis of social representations*. Hemel Hempstead: Harvester Wheatsheaf.
- Doise, W., Spini, D., and Clémence, A. (1999). Human rights studied as social representations in a cross-national context. *European Journal of Social Psychology*, 29, 1-29.
- Duveen, G.M. (2001). Representations, identities, resistance. In K. Deaux and G. Philogène (eds.) *Representations of the Social: Bridging Theoretical Traditions*. (pp.257-270). Oxford: Blackwell.
- Duveen, G.M. and Lloyd, B. (1990). Introduction. In G.M.Duveen and B. Lloyd (eds.) *Social Representations and the Development of Ideas* (pp.1-17). Cambridge: Cambridge University Press.
- Duveen, G. and Psaltis, C. (2008). The constructive role of asymmetries in social interaction. In U. Mueller, J.Carpendale, N. Budwig and B. Sokol (eds.) *Social Life*

- and *Social Knowledge: Toward a Process Account of Development*. (pp.183-204) Mahwah, NJ: Lawrence Erlbaum,
- Flament, C., Guimelli, C., and Abric, J.-C. (2006). Effets de masquage dans l'expression d'une représentations sociale. *Cahiers Internationaux de Psychologie sociale*, 69 (1), 15-31.
- Flick, U. (2007). *Managing the Quality of Qualitative Research*. London/ Thousand Oaks, CA/ Dehli: Sage.
- Flick, U. (2009). *An Introduction to Qualitative Research*. London: Sage.
- Flick, U. (2011a). Mixing Methods, Triangulation and Integrated Research – Challenges for Qualitative Research in a World of Crisis. In N. Denzin, and M. Giardina (eds.) *Qualitative Inquiry and Global Crisis*. Walnut Creek: Left Coast Press, pp. 132-152.
- Flick, U. (2011b). *Introducing to Research Methodology – A Beginner's Guide to Doing a Research Project*. London: Sage
- Flick, U., Garms-Homolová, V., Herrmann, W., Kuck, J. and Röhnsch, G. (2012). "I Can't Prescribe Something Just Because Someone Asks for It . . .": Using Mixed Methods in the Framework of Triangulation. *Journal of Mixed Methods Research*, 6 (2), 97-110.
- Flick, U. and Röhnsch G. (2007). Idealization and Neglect - Health concepts of homeless adolescents. *Journal of Health Psychology*, 12 (5), 737-750.
- Flick, U. and Foster, J.L.H. (2008). Social Representations. In C. Willig and W. Stainton-Rogers (eds.) *The Sage Handbook of Qualitative Methods in Psychology*. (pp.195-214). London: Sage.
- Foster, J.L.H. (2007). Journeys Through Mental Illness: Client's experiences and understandings of mental distress. Basingstoke: Palgrave.
- Foster, J.L.H. (2011). Reflections on Bauer and Gaskell's 'Towards a Paradigm for Research in Social Representations'. *Papers on Social Representations - Special Issue on A Half Century Of Social Representations: Discussion On Some Recommended Papers 20 23.1-23.12*.
- Friestad, C., Rise, J. & Roysamb, E. (1999). Social representations of smoking and attitudes towards smoking restrictions in the Norwegian Navy. *Scandinavian Journal of Psychology*, 40, 187-196.
- Gillespie, A., Howarth, C. and Cornish, F. (2012). Four problems for researchers using social categories. *Culture and Psychology* 18(3) 391-402.
- Halkier, B (2010). Focus groups as social enactments: integrating interaction and content in the analysis of focus group data, *Qualitative Research* 10(1) 71-89.
- Herzlich, C. (1973). *Health and Illness: a social psychological analysis*. London: Academic Press.
- Hodgetts, D., Sonn, C., Curtis, C., Nikora, L. and Drew, N. (2010). *Social Psychology and Everyday Life*. Basingstoke: Palgrave.
- Holstein, J.A. and Miller, G. (1993). Social Constructionism and Social Problems Work. In: G. Miller & J.A. Holstein (eds.), *Reconsidering Social Constructionism: Social Problems and Social Issues*. Chicago: Aldine, pp. 131-52.
- Howarth, C.S., Foster, J.L.H. and Dorrer, N. (2004). Exploring the potential of the theory of social representations in community-based health research - and vice versa? *Journal for Health Psychology*, 9(2), 229-243.
- Jahoda, G. (1988). Critical notes and reflections on 'social representations'. *European Journal of Social Psychology*, 18, 195-209.

- Jodelet, D. (1991). *Madness and Social Representations*. London: Prentice Hall.
- Joffe, H. (1999). *Risk and the Other*. Cambridge: Cambridge University Press.
- Joffe, H. (2003). Risk: From perception to social representation. *British Journal of Social Psychology*, 42: 55-73.
- Jovchelovitch, S. and Bauer, M. (2000). Narrative interviewing. In M. Bauer and G. Gaskell (eds.) *Qualitative Researching with Text, Images and Sound*. (pp.55-74). London: Sage.
- Kalampalikis, N. (2003). L'approche de la méthode Alceste dans l'analyse des représentations sociales. In J.-C. Abric (ed), *Méthodes d'études des représentations sociales* (pp. 147-163). Paris: Editions Erès.
- Kalampalikis, N. and Moscovici, S. (2005). Une approche pragmatique de l'analyse Alceste. *Les Cahiers Internationaux de Psychologie Sociale*, 66, 15-24.
- Klein, O. and Licata, L. (2003). When group representations serve social change: the speeches of Patrice Lumumba during the Congolese decolonization. *British Journal of Social Psychology*, 42, 571-593.
- Kronberger, N. and Wagner, W. (2003). Keywords in context: statistical analysis of text features. In M. Bauer and G. Gaskell (eds), *Qualitative researching with text, image and sound. A practical Handbook* (pp. 299-317). London: Sage Publications.
- Lahlou, S. (2001). Fonctionnal aspects of social representations. In K. Deaux and G. Philogène (eds), *Representations of the social* (pp. 131-146). Oxford: Blackwell.
- Lo Monaco, G. and Guimelli, C. (2011). Hegemonic and polemical beliefs: culture and consumption in the social representation of Wine. *The Spanish Journal of Psychology*, 14 (1), 237-250.
- Lunt, P. and Livingstone, S. (1994). Rethinking the focus group in media and communications research. *Journal of Communication*. 46:79-98.
- Marková, I. (1996). Towards an epistemology of social representations. *Journal for the Theory of Social Behaviour*. 26(2), 177-193.
- Marková, I. (2000). Amédée or how to get ride of it: social representations from a dialogical perspective. *Culture and psychology*, 6(4), 419-460.
- Markova, I. (2007). Social identities and social representations. How are they related? In G. Moloney, & I. Wlaker (Eds), *Social representations and identity. Content, process and power* (pp. 215-236). New York: Palgrave Macmillan.
- Marková, I., Linell, P., Grossen, M., Salazar-Orvig, A. (2007). *Dialogue in Focus Groups: Exploring Socially Shared knowledge*. London: Equinox
- Moscovici, S. (1961). *La Psychanalyse: son image et son public*. Paris: Presses Universitaires de France.
- Moscovici, S. (2000). The phenomenon of social representations. In R.M Farr and S. Moscovici (eds.) *Social Representations*. (pp.3-69). Cambridge: Cambridge University Press.
- Moscovici, S. (1994). Social representations and pragmatic communication. *Social Science Information*, 33, 163-177.
- Moscovici, S. (2001). Why a theory of social representations? In K. Deaux and G. Philogène (eds) *Representation of the social* (pp. 8-36). Oxford: Blackwell Publishers.
- Provencher, C. (2011) Lauri on organ donation or how to teach the theory of social representations using a quality empirical study. *Papers on Social Representations* 20: 35.1-35.10.

- Rose, D. (2000). Analysis of moving images. In M. Bauer and G. Gaskell (eds.) *Qualitative Researching with Text, Images and Sound*. London: Sage.
- Rose, D. (2003). Patients' perspectives on Electro-Convulsive Therapy: systematic review. *BMJ* 326:1363
- Spears, R. (1997). Introduction. In T. Ibáñez and L. Íñiguez (eds.) *Critical Social Psychology*. (pp.1-26). London: Sage.
- Voelklein, C. and Howarth, C. (2005). A review of controversies about social representations theory: a british debate. *Culture and Psychology*, 11(4), 431-454.
- Wagner, W. (1994b). Fields of research and socio-genesis of social representations: a discussion of criteria and diagnostics. *Social Science Information*, 33(2), 199-228.
- Wagner, W. and Hayes, N. (2005). *Everyday Discourse and Common Sense: the theory of social representations*. Basingstoke: Palgrave.