

CHAPTER 2

Ca How Do You Establish the Research Object
in Sociology?

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Ca.P1 To determine the research object in a sociological analysis represents an important as well as a complex task. One reason for this is that every phenomenon, before it can be analysed and explained, has to be preceded by a process through which it is established. The way that this is done also has consequences for the explanation of the phenomenon. There exists, in brief, a distinct unity to the sociological research act.

Ca.P2 These and related issues are explored in this chapter; and to assist in this, two new terms will be introduced. These are *observans*, meaning the process of observation, and *observandum*, the observed phenomenon. These terms complement two well-known terms in the philosophy of science, which are common also in sociology: *explanans* and *explanandum* ('the explanation' and 'the phenomenon to be explained'). Concrete examples from sociology are given throughout the chapter to illustrate the complexity of establishing the research object and that also show how this process is linked to the explanation.¹

Ca.P3 The terminology of explanans-explanandum was introduced by Carl Hempel and Paul Oppenheim in a famous article from 1948, which has exerted a huge influence on the philosophy of science (Hempel and Oppenheim, 1948; Salomon, 1989).² The article was read also by sociologists (e.g. Lazarsfeld,

1 As used in this chapter, the two neologisms (or protologisms) of *observans* and *observandum* have been created through intentional rhyming with *explanans-explanandum*. The terminology also has mnemonic qualities and is similar to *definiens-definiendum* (meaning how to define something, and what is defined), created from the verb *definire*, to define.

2 Before this article appeared, under the title of "Studies in the Logic of Explanation", most philosophers and scientists did not assign a central role to explanation. Many times, they did not even believe that it was possible to create scientific explanations, and that the focus of the analysis should instead be on description and observation. The situation that existed before the Hempel–Oppenheim article was published has been described in the following way: "Let's look at the dominant attitude of scientifically oriented philosophers and philosophically inclined scientists at the beginning of the twentieth century. By and large, they held that there is no such thing as scientific explanation – explanation lies beyond the scope of science, in such realms as metaphysics and theology. Karl Pearson stated it concisely: 'Nobody now believes that science explains anything; we all look upon it as a

1966: 463; Rowe, 1985). Amongst these, however, it underwent a decisive change, and took on such a general character that little was left of the original ideas of the original authors (e.g. Cohen, 1989: 192; Marshall, 1994: 167). The sociologists were, for example, not interested in the ideas of logical positivism, which were central to the argument of Hempel and Oppenheim.³ The important notion of a covering law, the so-called DN-model (deductive-nomological model), was also ignored. All that was left of the original argument was the terminology of explanans-explanandum.⁴ The reason why the sociologists liked this terminology was presumably that it constituted an easy and economical way of indicating the importance of clearly separating what is to be explained from the explanation, the explanandum from the explanans.

Ca.S

1 Observans – Observandum

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So much for reception of the Hempel–Oppenheim article in mainstream sociology. The time has now come to engage directly with the main theme of this chapter, namely how the research object is constructed in sociology. To do so, something needs first to be said about the two terms *observans* and *observandum*. Both are homemade Latin and have been chosen in analogy with the Hempel–Oppenheim terms. '*Observans*' means 'to observe' and is the result of

shorthand description, as an economy of thought" (Salmon, 1999: 338). This kind of attitude changed with the publication of the article by Hempel and Oppenheim, which set off an important shift in opinion. It soon became common to see the scientific method as centred around the element of explanation (e.g. Salmon, 1989: 11; ff.: 126–135). Observation, in contrast, was viewed as considerably less important (e.g. Woodward, 2014). And the two were not connected; the explanation was independent of the observation.

- 3 According to logical positivism, it is imperative to express the scientific method in precise non-metaphysical language. As a result, what Hempel and Oppenheim are referring to in their article is not explanation and observation as these take place in reality, but to "the sentences" in which these are expressed in a scientific theory. They write, for example, that "by the explanandum, we understand the sentence describing the phenomenon to be explained (not the phenomenon itself); by explanans, the class of those sentences which are adduced to account for the phenomenon" (Hempel and Oppenheim, 1948: 136–137). For a discussion of the covering-law in sociology, see e.g. Gorski (2004).
- 4 That the terminology *explanans-explanandum* has been decoupled from logical positivism as well as the names of its two authors can be seen with the help of a few n-grams (of such terms as *explanans-Oppenheim*, *explanans-covering law*). Hempel also formulated an explanatory theory based on statistics, which was much closer to how sociologists worked at the time than the covering law theory. The so-called "inductive-statistical explanation" did not, however, have much impact; the covering law idea represented a much more innovative and influential idea (e.g. Hempel, 1965: 381–410).

a process of observation, similar to the way that '*explanans*' means 'to explain' and is the result of the process of explanation. The term '*observandum*' means 'the observation', similar to the way that '*explanandum*' means 'that which is to be explained'.

Ca.P5 To focus on the process through which an observation is made, means that the observation, which is to be explained, is not viewed as something that is just given, natural or somehow self-evident. For one thing, when the researcher wants to study a topic, it takes some time before he or she knows what to look at and how to collect facts on the topic. Secondly, a process is involved also when it is decided what constitutes the kind of facts that are needed for the analysis to be sociological. A selection according to sociological principles has to be made; some facts need to be discarded and others selected. And thirdly, the facts that do exist about some phenomenon, are typically only available because of certain factors. Maybe some agency or group wants certain facts to be known and not others; maybe this makes some facts easier to establish and others harder. Figuring all of this out, and taking it into account, is part of the process of observation.

Ca.P6 What has just been said needs to be explicated in some detail. First of all, there is a process involved when one 'establishes the phenomenon', to use Merton's formulation (Merton, 1987). One often begins by having some vague impressions; and from here one can go in several different directions. After some trial and error, the research object will become increasingly clear, and take such a form that it can be studied. If one starts with a given data set or with observations of one's own, this process will take different forms, but is essentially the same.

Ca.P7 The following quote by philosopher Charles Sanders Peirce gives an indication of how complex the process of establishing the phenomenon can be; how it consists of different stages; and how it can go in different directions. One may begin the analysis, he says:

Ca.P8 by passively enough drinking in the impression of some nook in ... the Universe ... But attention soon passes into active observation, observation into musing, musing into a lively give and take between self and self. If one's observation and reflection are allowed to specialize themselves too much, the play will be converted into scientific study.

Ca.P9 PEIRCE, 1935: 214

Ca.P10 The process that Peirce is describing can also be cast as a question: How do the facts come into being that make up an object of study? Much can obviously be said in answer to this question. In sociology, some of this knowledge can be

found in books on methods, with their discussions of how to use techniques such as interviewing, participant observation, experiments, survey design, and so on. Statistics can also be very useful at this stage, since certain patterns can be discerned only if there is a huge number of observations (e.g. Goldthorpe, 2001). In some cases, special instruments have to be used when one makes observations, something that has been much discussed in the field of Science and Technology Studies (e.g. Shapin and Schaffer, 1985; Coopmans, Vertesi, Lynch and Wolgar, 2014).

Ca.P11 William Whewel (1847: 233) has called the process of successive elimination, which is involved when you go from the first stage of observation to a later and more focused one, the 'decomposition of facts'. In his view, which was that of a natural scientist, observations have to be shaped in such a way that the phenomenon can be measured and quantified. To this can be added that for something to be quantified in the first place, it has to be streamlined in some fashion (or commensurated, if very different types of entities are involved – Nelson Espeland and Stevens 1998; 2008). Max Weber has also pointed out that a process of selection is always involved when one observes, both when the researcher chooses a topic and when he or she gathers information about it (e.g. Weber, 2013: 100–138).

Ca.P12 When one goes from vague impressions to the establishment of sturdy facts in the social sciences, special attention has to be paid to *meaning*. First of all, according to Durkheim, the sociologist must break decisively with the everyday notions that people have of things and why they happen. "All preconceptions must be eradicated" (Durkheim, 1964: 31; see also Bourdieu, Chamboredon and Passeron, 1991).

Ca.P13 Secondly, and according to Weber, a sociological analysis must in principle always take into account the meaning with which actors invest their actions. This should be done, not only when one is making observations, but also when the explanation is being constructed. Sociologists who assign importance to the way that people define the situation typically proceed in a similar way.

Ca.P14 How the element of meaning is properly observed as well as established represents a contested issue. Weber himself, for example, suggested a few ways in which one can establish the meaning of the actors, such as through empathy and with the help of the actors' behaviour when it is rational in nature. He also emphasised that, whilst the meaning of the actors has to be included in the object of study, it is only one of the factors that has to be taken into account. This goes not only for the stage of observation but also for that of the explanation.

Ca.P15 Today's sociologists have at their disposal a number of methods that were not available in the days of Weber and Durkheim, such as the interview,

participant observation, and discourse analysis, which can be used to get inside the minds of people and determine how they view things. But even if this is the case, the way that the meaning of actors can be established is still contested. The same can be said about the general importance of meaning for what is being observed, and how it should be made part of the explanation.

Ca.P16 Let us now switch to the second set of issues that show that observation is always the result of a process; and that there exist no raw or natural facts. What is involved here is related to one factor that must not be forgotten, namely that sociology looks at a different aspect of things to, say, psychology, biology, and so on. This raises the following question which has to be addressed in every concrete piece of research: What exactly constitutes a *sociological* observandum?

Ca.P17 No answer can be given to this question that is universally agreed upon. In modern sociology, however, it is often argued that what should be analysed and explained are *patterns of social behavior* (e.g. Merton, 1968; Zerubaval, 2007). In what follows this is also how the observandum of sociology will be defined. It should, however, also be added that the general argument of this chapter would not change, except in details, if some other way to define the sociological observandum were used (see footnote 5).⁵

Ca.P18 It is not enough for a sociologist, in other words, to go simply from impression to fact (Peirce) when conducting a sociological analysis. The observandum must also be aimed at existing social patterns so that the sociologist may try to single these out. In other words, a selection has to be made amongst the facts; and only behaviour that is *social* and also *repeated*, should be selected. The focus in sociology is on types and rules, not on single events or particular individuals (e.g. Weber, 1978: 19–20, 29).

Ca.P19 It should also be noted that the use of the term 'behaviour', in the expression 'social patterns of behaviour', does not imply that the approach is behaviouristic. Exactly the opposite is true: following Weber, W.I. Thomas and others, one *always* has to include the meaning of the actors, when one establishes a social pattern. The analysis cannot be restricted to external behaviour.

Ca.P20 It is also important that the element of 'behaviour' is understood in a broad sense. Not only open and unambiguous forms of behaviour can form a pattern. These can also come in the form of, say, categories and emotions. How to understand the interaction between what is biological and what is social is also becoming an important issue in today's sociology (see e.g. Freese and Shostak, 2009; Conlay, 2016).

5 One can also argue, for example, that sociology studies social facts (Durkheim), forms of social action (Weber), social forms (Simmel), the class struggle (Marx), and so on.

Ca.P21 One sociologist who has consistently used the term 'social pattern' for the subject or observandum of sociology is Robert K. Merton. In *Social Theory and Social Structure*, he enumerates the types of facts that a sociologist should look out for, when he or she is doing research on social patterns of consequence:

Ca.P22 In summary, then, the descriptive protocol [in a sociological analysis] should, so far as possible, include:

- Ca.P23 1. location of participants in the pattern within the social structure – differential participation;
- Ca.P24 2. consideration of alternative modes of behavior excluded by emphasis on the observed pattern (i.e. attention not only to what occurs but also to what is neglected by virtue of the existing pattern);
- Ca.P25 3. the emotive and cognitive meanings attached by participants to the pattern;
- Ca.P26 4. a distinction between the motivations for participating in the pattern and the objective behavior involved in the pattern;
- Ca.P27 5. regularities of behavior not recognized by participants but which are nonetheless associated with the central pattern of behavior.

Ca.P28 That these desiderata for the observer's protocol are far from complete is altogether likely. But they do provide a tentative step in the direction of specifying points of observation which facilitate [the] analysis. They are intended to be somewhat more specific than the suggestions ordinarily found in general statements of procedure, such as those advising the observer to be sensitive to the "context of situation" (Merton, 1968: 114).

Ca.P29 Of the five points that Merton makes in his discussion of the observandum in sociology, the first deals with major or central social patterns. Besides social structure, other examples that fall in this category are standard sociological concepts, such as institutions, roles and classes. The power of these patterns, Merton then goes on to say, is such that they can prevent or block attempts to form 'alternative modes of behavior'. This means that the latter can be hard to establish, but they must not be ignored.

Ca.P30 Merton next notes that social patterns do not take the form only of patterns of behaviour in a narrow sense; they may also have important cognitive and emotional elements attached to them. He is similarly of the opinion that the meaning with which the actors invest their actions must always be studied, as part of establishing a social pattern. But he also cautions that the relationship of these meanings to actual behaviour is by no means self-evident. Certain actions and meanings usually go together, but this is not always the case. People may, for example, *not* act on their values, as Merton famously pointed out in his analysis of *The American Dilemma* (Merton, 1949; for another example of

the 'attitudinal fallacy', see e.g. Jerolmack and Khan, 2014 as well as the discussion of this article in the same issue).

Ca.P31 But as mentioned earlier in the chapter, there is more to the process of observation than establishing the phenomenon and locating the sociological observandum. There still exists one moment that the sociologist has to work through, before the observation is finished and ready to be explained. This has to do with the fact that the data that exist, as well as the possibility for the sociologist to generate new data on some pattern, are dependent on special social, economic and/or political factors. Some of these may make it hard to research some topic; others may facilitate it (e.g. 'strategic research material' – Merton, 1987). Whichever is the case, how these social, political and/or economic factors may affect the information that exists or can be generated about some phenomenon, needs to be taken into account and included in the analysis.

Ca.P32 The last point is something about which especially Stanley Lieberman was very much concerned, namely that sociologists would work with data which were available to be analysed for reasons she or he did not know (Lieberman, 1987: 229–233).

Ca.P33 For example, only when the sexual mores are looser is it likely that one can do a survey of sexual mores. In a period of highly repressed sexuality it would not be easy to do such a survey – especially one that demanded official approval, access to certain types of people, funding, the ability to take a random sample, and so on.

Ca.P34 LIEBERSON, 1987: 230

Ca.P35 By way of summarising this section, it can be said that no 'observation' can exist without first being preceded by a process of observation; and that the same goes for the research object. As has been shown, the process that is involved is quite complex. For one thing, there is what has been called 'establishing the phenomenon', in which the researcher focuses on the object of study by going from first impressions to facts. Second, since the analysis is to be sociological, the research object needs to be selected out and constituted from a sociological perspective. The process of 'establishing the phenomenon' means in other words that the phenomenon has to be *sociological*.

Ca.P36 Thirdly, only some facts, and not others, are available to the sociologist for analysis (or can be generated with a certain research object in mind); and this is due to a process that the sociologist needs to analyse whilst understanding the various political, social, and/or economic factors that are at work here. When does this process work in his/her favor, and result in 'strategic research

material'; and when does it create obstacles for the researcher? Following Merton once more, this set of issues depends on what can be called the "observability" of a phenomenon (Merton, 1968: 373–411).

Ca.Sz 2 **Observandum Is Explanandum – and How This Affects the Explanans**

Ca.P37 At the outset of this chapter I wrote that explanation and observation are closely linked to one another. That this is the case is easy to see thanks to the terminology of observans-observandum. What constitutes the explanandum in the original terminology of Hempel and Oppenheim ('the phenomenon') is by definition the same as what in this chapter has been called the observandum ('the result of observation'). This also means that the explanans is directly connected to the observans or the process of observation. There can be no explanation without there also being a process of observation.⁶

Ca.P38 This argument also casts some new light on the suggestion that the facts in a scientific analysis are 'theory-laden' or 'theory-loaded', in the sense that they are influenced by the way that the observer looks at them (Hansen, 1958). It has, for example, been argued that if one works in accordance with a certain paradigm, one tends to view reality in a certain way (Kuhn, 1962: 126–129, 150). Where one scientist may just see a swinging stone, another may see a pendulum that traces a certain figure.

Ca.P39 That the general perspective of a sociologist influences his or her observations is well established; and in this sense these observations are clearly 'theory-laden' (they are also influenced by the sociologist's prejudices and general being in society; see e.g. Bourdieu on reflexivity, and Weber on objectivity – Bourdieu and Wacquant, 1992; Weber, 2013).

Ca.P40 Observations are theory-laden in another sense as well, namely because it is the task of sociologists to single out and establish social patterns of behaviour; and this means that certain theoretical assumptions have to be made in the process of observation. One assumes, for example, that sociology focuses on patterns, when the research object is decided on, and not on individual

6 The reader who is familiar with Hempel's work knows that he disagrees with what he terms "the paradox of theorizing" or the idea that "theoretical terms" can be fully replaced by "observational terms" (Hempel, 1965: 49, 87). This argument builds, however, on the very assumption that this chapter has tried to challenge, namely that you can draw a sharp line between observation and theory in sociology. It can be added that this distinction has for a long time been challenged in the philosophy of science.

behaviour. But what exactly is a pattern? Behaviour with meaning that is frequently repeated? And what exactly is a 'meaning', and how does it enter into action, and with what effect?

Ca.P41 Whatever answer one gives to these questions, it is clear that without theory – here typically in the form of basic assumptions and assertions – it is not possible to do any sociological observation at all. And this, in its turn, means that explanations are not independent of observations.

Ca.P42 There is also the fact that when the type of facts that are used in the analysis needs to be changed or complemented with new data, so may the explanation. If one finds, for example, that the phenomenon under study is not what one initially thought, one may want to go back and get some new data – and this can mean that also the explanation may have to change. One may, for example, want to study the dependence of women on their husbands in a marriage; but how one defines this dependence as one goes along (as being primarily economic, emotional or social, etc.), will influence the explanation. Again, in other words, observation and explanation are linked and not independent of one another.

Ca.P43 If we now change from looking at the way that observation is influenced by the explanation, and instead turn to influence in the opposite direction, the following can be said. An explanation in sociology attempts to show how patterns of behaviour are generated, and how they change. This has several important consequences for the way that sociological research has to be carried out. First of all, it should be pointed out that an explanation is needed. The reason for stating this is that there exists an ambiguity with the term 'pattern', which can make it hard to differentiate between the establishment of a pattern and its explanation. The surface structure is mistaken for the deep, generative structure.

Ca.P44 In other words, once a pattern has been established it may look to the researcher as if some social behaviour has been explained, since the data have now been cast in a sociological mold. When this is the case, there is a danger that the analysis will come to an end and not include an explanation. Analyses of big data and work in Artificial Intelligence are typically focused on patterns and can be helpful in the same way as statistics, in that they allow one to see patterns in large numbers. But they also come with a general tendency to disregard theory, including sociological theory. Such a term as 'data science', which is becoming popular, is an indication of how central data have become in modern society; it is its own subject (e.g. Lewis, 2018).

Ca.P45 The tendency to establish social patterns without explaining them also exists in sociology. It is, for example, common in text analyses, where a number of techniques from such fields as computer science and AI are used by

sociologists to map out social patterns in huge data sets. The patterns that are located in this manner exist exclusively in the use of language and are said to be expressions of roles, prejudices, ways of communicating, and so on (see e.g. Evans and Aceves, 2016). Whilst this way of proceeding can be valuable for a number of reasons, the point here is that the illusion is created that something has actually been explained.

Ca.P.46 Part of the problem here is that a number of sociological terms, such as role model, peer group, status symbol and so on, have entered the general vocabulary, which means that they need to be defined in an especially careful manner by the sociologist (e.g. Merton, 1982; Zuckerman, 1988). If this is not done, one may be tricked into believing that one is looking at a sociological phenomenon when in fact one is not. Again, the reason for this is that sociological terms that have entered the general culture 'have lost much or all of their original meaning and often acquired new meaning' (Merton and Wolfe 1984: 23). We also live, as Merton has put it, in a 'sociological culture'; and this raises a number of tricky issues as well (which unfortunately cannot be addressed here; see AQ1 AQ2 AQ3 Merton and Wolfe, 1995: 35).⁷

Ca.P.47 That sociological theory is influenced by observation is also seen in the fact that empirical data will continually be fed into it, in the form of changes in theory that come from new analyses and their advances. Data now assume a new form, namely as theory, while they continue to have their roots in observation. Theory, to wit, is data laden.

Ca.P.48 Merton used to say that there exists a 'two-way traffic' between theory and empirical research in sociology; and this represents one way of describing their relationship (see e.g. Merton, 1968: 279, 312). One can also say that sociology is both theory-driven and data-driven, since the two at one point converge and to some extent are also part of one another. Sociology, however, cannot be exclusively theory-driven or data-driven, even if the theory part or the data part can vary in importance, depending on the situation in which sociology happens

7 The full quote about modern people living in a sociological culture reads as follows: "At the height of sociology's post-war popularity, Richard Rovere noted that "Those of us who have been educated in the twentieth century habitually think in sociological terms, whether or not we have had any training in sociology." This is, if anything, even more true in the 1990s. At this time Americans are exceptionally sociologically preoccupied, as they are, with questions of ethnicity, group loyalty, immigration, and lifestyles. We continue to live in a sociological culture, one important reason why sociology prospered in the United States. Sociology, moreover, has been influenced by the general culture and society. The women's movement has had a major impact on the field; the number of women sociologists has increased (Roos and Jones, 1993), and the influence of feminist ideas can be felt in nearly every area of academic sociology" (Merton and Wolfe, 1995: 35).

to find itself. According to the proponents of analytical sociology, for example, today's sociology needs much more of a sharp theoretical perspective (e.g. Hedström and Bearman, 2011). Whilst one can quarrel about the type of theory that is needed, it seems clear that modern sociology is awash in data and needs new and better theory.

Ca.P49 But back to the main argument of the chapter. Whilst it would lead us too far astray to include a discussion here of what constitutes an explanation in sociology, two points need to be made that are relevant for an understanding of the link between the research object and its explanation, between observation and theory. The first is that a sociological explanation should be able to capture the creation and transformation of social patterns, and this means that statistics have to be used with some caution. A statistical explanation is not the same as a sociological explanation; the two follow, in principle, different logics (e.g. Goldthorpe, 2001; Hedström, 2009: 2–33, 101–113).

Ca.P50 The second point is that the kind of explanation that is needed in sociology should ideally be able to capture the process of generating and changing social patterns in a way that is transparent. This should be done at a certain level of generality, so that the explanation can be used in empirical cases other than the ones that are analysed. Merton used the term 'social mechanism' for such general and transparent accounts of how social patterns are generated and transformed; and it represents an important part of his vision of a middle-range sociology.

Ca.P51 Merton's study of the self-fulfilling prophecy can be cited as a fine example of this type of explanation (Merton, 1968: 475–490). But as every sociologist knows, it is very hard to discover new social mechanisms. What one usually finds is that what at first appears to be a new mechanism turns out to be a version of some basic model (e.g. Elster, 2009). This means that it may be better to try something easier. It is, for example, sometimes possible to adjust or add to some basic mechanism or to show how a new or unexpected phenomenon can be explained with the help of some existing social mechanism, and the like.

Ca.P52 The idea that an observation has to be preceded by a process of observation is not so different to the fact that before you have an explanation, it has to be produced. One can for example view the invention of an explanation (abduction) as a case of a process that takes place in the head of the analyst, but which is otherwise analogous to what happens when he or she is observing something (e.g. Peirce, 1934: 171–172; Fann, 1970). And just like a good observer will look at things from several different angles, before settling on the right one, a good researcher will try to come up with several explanations (e.g. Stinchcombe, 1968: 13; Lave and March, 1975).

Ca.P53 What has just been said about the way that sociologists deal with the construction of an explanation also suggests a different way of looking at the process from observans to explanans, over observandum/explanandum, to what has been presented so far in this chapter. This would be to study how this process is worked out *in actual practice* by sociologists. This means that one needs to switch from being concerned primarily with (formal) theory to (practical) theorizing. If the former can be likened to Goffman's front stage, the latter is represented by the back stage. When one theorises, one does not simply proceed from 1 to 2 to 3, with 1 standing for observans; 2 for observandum/explanandum; and 3 for explanans. In actual research, one may instead start with, say, 1; hop over 2; think a bit about 3; then go back to 2, repeat the whole thing, and so on. Similarly, what happens inside the very acts of observation (1) and explanation (3) also follows a similar non-linear logic in actual practice. The reason for this has to do with the existence of heuristic attempts, mistakes, dead ends, and so on.

Ca.53 **3 Discussion**

Ca.P54 What is novel here is the notion that the theory be expected to help us understand not only the pattern found but also the presence of the data and the distribution and nature of the causal variables that can be studied.

Ca.P55 LIEBERSON, 1987: 230

Ca.P56 What are the practical consequences of the argument in this chapter about the research object, namely that observation is always preceded by a process of observation and that explanation and observation are closely linked to one another? A simple answer would be that more attention needs to be paid to this fact since it raises many important questions. And here the conceptual pair of observans-observandum can come in handy since they allow one to grasp this in a simple way.

Ca.P57 To some extent, the answer to this question will also differ depending what type of sociology is involved. In qualitative sociology, for example, the line between observation and explanation is often drawn differently to how it is done in quantitative studies. At times, it is not clearly delineated; and when this is the case, the description is more or less seen as the same as the explanation.

Ca.P58 If we turn to quantitative sociology, it is quite common that the data sets that are being used have been put together by someone other than the analyst. When this is the case, the process of producing the observation, and the conditions under which this takes place, is often ignored; and this may seriously

compromise the analysis. Two other potential pitfalls have to do with the role of meaning, on the one hand, and the role of patterns in sociological analysis, on the other. When quantitative data are used, the element of meaning is sometimes missing or cast in such a stereotypical form that makes it easy to ignore. Both situations can result in major errors in the analysis. Some sociologists are content with simply establishing patterns and regularities, but do not show how these come into being and change; in brief, they do not show how they are generated. The idea that patterns can be used to explain other patterns is also not very helpful.

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At the outset of this paper, it was mentioned that establishing the research object is a complex process that raises a number of difficult questions. Many of these have been mentioned but by no means solved. What has been provided, however, is a terminology that is hopefully useful when it comes to discussing a broad theory. This terminology also shows the unity of the research act in sociology: explanans-explanandum is very closely linked to observans-observandum.

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