2. A biographical research approach

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To fulfil the aim of this book, which is the focus on the persons that lead complex infrastructure megaprojects, we need special attention for the methodology of our study. To capture the personal and subjective nature of such a focus we use a qualitative research approach, which will be based on the philosophical stance of interpretivism and its ontology which "assumes that reality is socially constructed; that is, there is no single, observable reality, rather there are multiple realities, or interpretations of a single event" (Merriam and Tisdell, 2015, p. 9). What is being attempted throughout this book is to capture the observed reality of leaders of megaprojects. Epistemologically, qualitative researchers are interested in "how people make sense of their world and the experiences they have in the world" (Merriam and Tisdell, 2015, p. 15). We, as qualitative researchers, are interested in how leaders of megaprojects reflect upon their own careers, values, norms and perspectives, much in the same way as top managers of corporations do (Koot and Sabelis, 2002).

To capture an in-depth understanding of career transitions and work identities of people leading megaprojects we used the biographical research method (Reed-Danahay, 2001; Rosenthal, 2004). Biographical research can be defined as "research undertaken on individual lives and work employing autobiographical documents, interviews or other sources and presenting accounts in various forms" (Roberts, 2002). Biographical research has gained popularity in reaction on the questionnaire method (Denzin, 1997), reflecting a move towards a more humanistic research approach (Barabash and Merrill, 2014). Researchers within the biographical approach focus their attention on the relation between individuals, work and society (Roberts, 2002, p. 34).

In an historical overview of literature on the method of life histories, Reed-Danahay (2001) emphasizes the high-quality narratives when those being studied tell their own life history. Biographical research focuses on longitudinal continuities in personal experiences, showing moments of choices, and crucial events that changed one's life or were otherwise important in the making of moral choices (Rosenthal, 2004). Biographical research is characterized by different approaches such as life histories, life stories (Bryman,

2000), narratives or biographical narratives (Gabriel, 2004), terms that are frequently used interchangeably. Narrative approaches are strong in capturing a rich image of the respondents (Denzin, 1997), taking respondents back in time and exploring their personal roots by focusing upon their life history (Reed-Danahay, 2001).

Topics for a biographical interview are, then, about the different phases in one's own life; family origins; the period of youth; going to school and obtaining education; and the influence of significant others in parallel with private life developments. Rosenthal (2004) calls these "internal narrative questions". Then, Rosenthal (2004) suggests asking "external narrative questions", which concern events or actions that the respondent relates to during the interview. Interviewees thus identify what is significant and meaningful to them about their past, present and future lives, careers, and work, and particularly reflect upon how their life history has fuelled their approaches to leading megaprojects.

Plummer (2001) distinguishes naturalistic, researched, and reflexive life stories. Naturalistic life stories are stories that people tell as part of their everyday life in (project) communities. These stories are not shaped by scientists but might be recorded as part of an ethnographic field study by anthropologists. In contrast, researched stories, the second category, are collected in special settings with recording equipment in which the role of the researcher is crucial (Plummer, 2001). The researcher shapes and assembles the stories based upon interviewees recounting their career and learning biographies across the life course. An example of this is the life history of Indian megaproject director Sreedharan, 'Mr. Metro Man', written down by his biographer (Ashokan, 2015). The third category is the reflexive life stories, which are told in a much greater awareness of their construction by the interviewee. Data is captured in this approach in the words of the informant, sometimes in the form of auto-ethnographic stories. Examples of these types of stories are auto-ethnographic accounts of megaproject managers (e.g. Campbell, 2016; Ruijter, 2019).

Biographical research produces rich data, sketches an historical perspective, and obtains access to one's life world. In this way, researchers can capture an in-depth understanding of the interviewees (Reed-Danahay, 2001), while analytical connections can be made. Disadvantages of this approach are related to the vague generalization of findings and the subjective reconstruction of one's life history. After all, biographical research is a kaleidoscopic approach and not focused upon generalization of findings (Reed-Danahay, 2001). Therefore, a strong reflexive methodology is needed, as reflexivity and self-expression by the interviewee are crucial (Alvesson, 1996). In addition, cross-cultural interpretation of life history is difficult from a Western researcher's perspective when the person being interviewed is not from Western culture (Reed-Danahay,

1997). To overcome this problem, we have asked our contributors to interview the respondents, as much as possible, in their own language and understand the interviewees' narratives in their own cultural context.

DATA COLLECTION

A case-study methodology using a multiple case-study design (Yin, 2009) was used. Sampling of cases aimed to maximize diversity to identify patterns and similarities. This was done by identifying a variety of sectors to collect data including utility and construction. The selection of our cases was based upon the following criteria. First, we contacted our academic networks of global megaproject scholars to identify megaprojects that might serve as case studies for our book. We then selected megaprojects in which one of the leaders was willing to participate in a reflective biographical interview. For two chapters (7 and 8), we interviewed two leaders who contributed to the success of the project. In this way, we gathered 16 life histories of megaproject managers all over the world (Table 2.1). Due to the limitations of our network, we were not able to cover the continents of Africa and South America. Using this approach, ten countries are covered in Europe, North America, Asia and Oceania.

Data for these cases was collected by the authors between the autumn of 2017 and the summer of 2019. Prior to the interviews, the editors sent out a methodological guideline for all authors on how to approach their case studies. In the guidelines, the central question of the book was emphasized: what can we learn from the personal views of megaproject leaders in managing successfully their own projects? This question was divided into three relevant sub-questions: (1) what are the personal views of project managers; (2) how has this view influenced their leadership; and (3) what do project managers perceive as successful lessons learned?

In each chapter, a short methodological reflection is included, but generally, all interviews were semi-structured and followed a case-study protocol, which was developed and tested by the editors at the outset of the study. This protocol covers subjects such as (1) historical life episodes; (2) description of the megaprojects; and (3) lessons learned. The interviews lasted between 90 and 180 minutes, and were recorded and subsequently transcribed for analysis. When relevant, the interviewing was done in the native language of the interviewee to minimize the cultural gap between researcher and interviewee (Reed-Danahay, 1997). Other information, such as company information, was collected on an as-needed basis and company websites were searched to get a better understanding of their project management practices.

Table 2.1   *Case studies*

Chapter	Leaders' names	Country	Megaproject(s)
3	Annegret Schaber	Germany	Motorway
4	Mark Thurston	England	Railway
5	Neil Couling	England	Digitalization of payment system
6	Hans Ruijter	Netherlands	Motorway and tunnel
7	Renzo Simoni and Dieter Schwank	Switzerland	Tunnel
8	Nick Greiner and Grahame Campbell	Australia	M4 motorway
9	Sean Sweeney	New Zealand	Museum
10	John Parker	Australia	Hydrocracker
11	Soohong Kim	South Korea	Bridge
12	Zhu Yongling	China	Bridge
13	Ma Zonghao	China	Tunnel
14	Brijesh Dixit	India	Metro railway
15	Jean-Marc Arbaud	Canada	Urban transportation
16	Réal Laporte	Canada	Hydroelectric facilities

DEVELOPMENT OF THE ANALYTICAL FRAMEWORK

As life stories are real stories, their analysis must be closely linked to narrative analysis (Plummer, 2001). Narratives are key elements in life stories accounting for events, significant incidents, relationships and careers and "give coherence to experience by plotting them in time and place" (Cortazzi, 2001, p. 388). Therefore, time, place, people and context are necessary to uncover thematic lines in the biographies (Cortazzi, 2001). Time is here understood to be related to the biographical roots of the teller, place is the environment in which the biographic life unfolds, while people are the social relations of the teller with significant others, family, colleagues and friends. We use these three concepts to construct our analytical framework (Table 2.2). In life histories the timeline is of importance (Rosenthal, 2004); therefore, we combined the three concepts with the concepts of past, present and future. Applying the timeline to the concepts created a matrix in which the life stories of the studied project leaders can be analysed (Table 2.2).

Table 2.2   *Analytical framework*

	Time	Social relations	Place
Past			
Present			
Future			

ANALYSIS OF THE BOOK CHAPTERS

The personal views of leaders in managing infrastructure megaprojects typically asks for an interpretative analysis (Schwartz-Shea and Yanow, 2009). We were more interested in personal values, traits and learning experiences rather than in experiences with and best practices of managing megaprojects. The 14 cases were analysed using an interpretative approach in which data are understood within the context of each case (Moore, 2011). To make claims about how actors interpret what is going on around them (Ybema et al., 2009), interpretative sense-making was used, which emerged as a result of immersion in the data (Yanow and Schwartz-Shea, 2006). A five-step interpretive method was used for the analysis (Schwartzman, 1993).

The first step was the interpretation of each of the authors of their own case. Each of the draft chapters was reviewed by one or two of the editors or a researcher from their academic network. After the resubmission of the chapters, a second round of reviews was organized, which finally resulted in chapters that were academically rigorous and fitted the central goal of the book. The second step was then the reading of all chapters by the four editors for a second-level analysis, to see what topics emerged from the case studies. Each of the editors made a first round of analysis of the most important themes related to the topic of leaders in megaprojects. The researchers then came together in a two-day workshop to exchange what they had found so far, and jointly discussed their first interpretations. Based upon these discussions, the analytical framework (Table 2.3) was developed with labels emerging from these close readings (Yanow and Schwartz-Shea, 2006; Clandinin, 2013). Related to the issue of time, we found topics of family values, social class, turning points and significant others. We have called these *biographical roots*, which are all directly connected to the life history of the interviewee (Table 2.3). In the cluster related to the topic of social relations, we analysed personal beliefs, teamwork, trust and project culture. We have called this cluster *social relations in the project*. Finally, related to the issue of place, we found topics of national cultural context, of religious upbringing and of the project's physical environment, such as a dangerous sea or sinking underground. We have

called this cluster *environment of the project*. In a third step each of the editors, separately, went through all the final chapters with the help of the framework developed earlier to further distil important findings. In the fourth step, the different analyses were brought together and jointly discussed in a Skype meeting, after which the matrix of three temporal categories and three themes were finalized. The fifth step involved a final interpretive process through multiple readings of the matrix and the chapters resulting in the final version of the book.

Table 2.3   Framework for the analysis of the life stories

	Time *Biographical roots*	Social Relations *Social relations in the project*	Place *Environment of the project*
Past	Family values	Personal situational setting	Cultural context
	Turning points	Constructing self-identity	Political context
	Significant others	Social intelligence	Environmental complexity
	Learning process	Beliefs	
Present	Learning by doing	Teamwork engagement	Stakeholder management
		Project culture	Risk management
		Trust	Innovative processes
Future	Learning by reflecting	Public–private collaboration	

VALIDITY, RELIABILITY AND ETHICS

In most chapters, validity was pursued by using data source triangulation to verify data interpretation stability throughout situations (Miles and Huberman, 2003). In a few chapters, two authors jointly interviewed the megaproject leader to create investigator triangulation (Miles and Huberman, 2003). Investigator triangulation was further achieved in the design of the study and the analysis of the individual chapters. Reliability was achieved through the use of case-study protocol (Yin, 2009), which ensured the use of similar underlying research assumptions and interview questions across all interviews, as explained earlier. Informed consent was gained and confidentiality guaranteed to each informant when required. Each of the interviewees has seen and

approved the final version of their chapter. Ethics approval was granted by the respective government institutions and universities where editors were located.

In this chapter, we have explained in detail the methodological foundations of the book and given a first overview on the cases that will be discussed. We take great pride in presenting the chapters of this book, which uniquely capture the inner worlds of leaders involved in megaprojects around the world. In Chapters 3–16, biographical stories of 16 leaders, originating from ten different countries, are discussed in detail. Each chapter presents a specific life story of a leader, gives a brief description of the megaproject they are responsible for, and then reveals their secrets to better manage megaprojects and identify the lessons learned.

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