We call the first research approach to small-N studies co-variational analysis (COV). This methodological approach presents empirical evidence of the existence of co-variation between an independent variable X and a dependent variable Y to infer causality. This approach has dominated the thinking about small-N research designs since the 1970s. We present it here as the first approach because it has been central to most of the methodological reflections on small-N research designs. Nevertheless, as we will see at the end of this chapter, because of its inherent limitations, it seems wise to complement this approach with other approaches, especially with elements from the causal-process tracing approach (CPT).

The chapter proceeds as follows. First, we argue that the COV approach has strong affinities to a distinctive research goal, namely to determine whether a certain factor has an effect, that is, whether it ‘makes a difference’. We assemble a broad array of typical research questions that illustrate this goal (Section 2.1). Second, we discuss the ontological and epistemological foundations of this approach. In particular, we focus on the counterfactual concept of causation, the logic of experiments, and deterministic versus probabilistic causation (Section 2.2). In Section 2.3, we address the criteria for case selection, a step that is crucially important in this approach to case studies because the selection of cases strongly determines the possibilities of drawing logical conclusions. We also discuss different modes of comparisons ranging from cross-sectional comparison and intertemporal comparison to the cross-sectional–intertemporal comparison and the counterfactual comparison. Section 2.4 is concerned with the approach-specific functions of prior knowledge and theory. We argue that an overview of existing theories and knowledge in the field of research is necessary for a number of
reasons, including the conceptualization of variables, arguments about the plausibility of the effect of the variable of interest on the dependent variable, and the determination of other variables that might have an effect and therefore must be controlled for. Section 2.5 discusses data analysis. We demonstrate the logic of drawing causal inferences for the cases under investigation and emphasize that reference to theory and/or the complementation of this approach by elements of causal-process tracing contributes to making these conclusions more convincing. The chapter then discusses measurement and data collection issues. In the actual research process, issues of measurement and data collection must be addressed prior to case selection and data analysis. However, we discuss them here after those themes to help the reader understand why some issues of measurement and data collection must be settled before cases can be selected and analyzed (Section 2.6). We show that, in principle, small-N research is better able to achieve concept validity than large-N research because focusing on a few cases allows variables to be conceptualized in complex and multidimensional ways. Indicators can be employed in context-sensitive forms, and the integration of all observations in a final score of a variable can and should be done reflectively. In Section 2.7, we address the question of generalization. First, we clarify that generalization in the COV approach means that the empirical findings of the cases studied (for example, that X makes a difference) are generalizable to a population of similar cases (similar in respect to the control variables). In accordance with Robert K. Yin (2009 [1984]: 15), we call the corresponding logic of drawing conclusions beyond the cases under investigation ‘statistical generalization’. We argue that while generalization is relatively limited, in many instances, this is not a problem. For instance, case studies applied in evaluation research are primarily used to determine whether a policy measure made a difference, for example, in a specific country or city. Furthermore, case studies are often the first step in a larger research program. Showing that a factor makes a difference in a small sample of cases is often seen as a plausibility probe that must be tested with large-N studies to determine whether and how much the factor matters generally. These and other combinations of small-N and large-N studies will be discussed in more detail in Chapter 5. Finally, we briefly discuss the typical research process and the appropriate style of presenting the findings, emphasizing that the presentation of findings should be more deductive and linear than the actual research process usually is (Section 2.8).