Theory Building

4

4.1 Conceptualization and Definitions

In the context of characterizations of theories in Sect. 2.1, the meaning of (abstract) concepts and the essential role of concepts for theories has been emphasized. In this respect, there is probably no specific explanation needed that the development of concepts ("conceptualization") is an essential step in the building of theories. "Concepts are the building blocks of theory" (Neuman 2011, p. 62). Closely related to this is the most precise characterization of concepts through corresponding *definitions*, which in turn form the basis for the development of appropriate measurement instruments (see Chap. 6). Against this background, considerations of conceptualization and definitions are an essential step in theory building.

The understanding of the term "**conceptualization**" refers to the process of abstract identification of parts of reality that are of interest, and of summarizing them in terms of thought. In marketing we speak—to give an example—after buying decisions (related to cars, travels, wine etc.), summarizing and abstracting from the individual cases about "customer satisfaction", if expectations before the purchase and experiences after the purchase correspond, or when expectations are exceeded. In this section, the considerations of conceptualization and definitions thus focus on the thoughtful development of individual concepts. The literature (for example, Yadav 2010; MacInnis 2011) also offers broader perspectives on conceptualization, in which the whole process of theory building is labeled as conceptualization.

How can one imagine the process of conceptualization? Deborah MacInnis (2011, p. 140) identifies this process as follows:

> Conceptualization is a process of abstract thinking involving the mental representation of an idea. Conceptualization derives from the Medieval Latin conceptualis and from Late Latin conceptus, which refer to 'a thought; existing only in the mind; separated from embodiment' (. . ..). Thus, conceptualization involves 'seeing' or 'understanding' something abstract, in one's mind.

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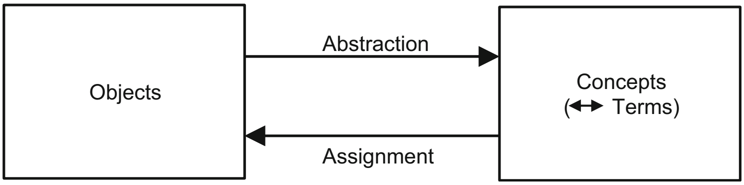

Fig. 4.1 Process of abstraction and assignment (according to Zaltman et al. 1973, p. 28)

If one connects the common features of different objects (people, things, events or states) with a designation that does not refer to individual (specific) objects, but rather to their similarities, neglecting other details—which are of no particular interest—then one *abstracts* from this individual objects (Zaltman et al. 1973, p. 28). For example, people in a hospital are very different in terms of age, gender, ethnicity, occupation, etc.; with regard to a hospital management study, however, it may be necessary to abstract from these features and to talk about "patients". In many cases of scientific research and also practical application, it is essential to assign individual objects to specific concepts. For example, the assignment of a patient to the concept "alcohol-dependent" for his or her treatment and chance of recovery is significant and the assignment of a client to the group of intensive users is important in terms of sales efforts. However, such an assignment can only be successful if the corresponding definition is sufficiently precise. Figure 4.1 illustrates these aspects of conceptualization.

The (mental) development of a concept is often connected with its linguistic characterization, usually by assigning corresponding terms (see Fig. 4.1). This may start with some terms associated with the concept and end with an exact **definition** (see below). The focus is on the process of transcribing a concept. "Instantiation is a deliberate process that involves specifying concrete instances of abstract concepts in order to help clarify their meaning. It is fundamental to science and a crucial process for refining initial theoretical ideas" (Jaccard and Jacoby 2010, p. 76). We could characterize the already mentioned example of customer satisfaction by examples of different types of purchases. This ensures that the relationship between a concept and real phenomena and observations, which is essential for the following empirical tests, remains recognizable.

Of course, if there is sufficient clarity about the content and delineation of a concept, its exact formulation in the form of a definition is required. A definition is the verbal description of a concept and this involves the specification of a mental concept and the possibility of communicating it and making it intersubjective comprehensible. Against this background one also speaks of "**conceptual definitions**". For practical reasons, a written statement is absolutely necessary in order to ensure the necessary precision. "Definition is an operation that introduces a new term on the basis of already existing terms" (Zaltman et al. 1973, p. 26; see also Psillos 2007, p. 62). The new (to be defined) concept is named in the scientific literature as **definiendum**, the defining part of a definition is called **definiens**. For example, Hoyer et al. (2013, p. G-2) define "brand extension" (definiendum) as "using the brand name of a product with a well-developed image on a product in a different category" (definiens).

> Shelby Hunt (1987, p. 209) on the nature and usefulness of definitions:
>
> "Definitions are 'rules of replacement' (. . .). That is, a definition means that a word or group of words (the definiens) is proposed to be truth-functionally equivalent to the word being defined (the definiendum). Good definitions exhibit inclusivity, exclusivity, differentiability, clarity, communicability, consistency and parsimony."
>
> "*Inclusivity* means that the phenomena commonly attributed to the definiendum should be included in the definition. By contrast, *exclusivity* refers to the clear distinction from other phenomena."

The way to formulate a conceptual definition is usually anything but easy. It requires appropriate abilities for abstraction, for precise linguistic expression, and for critical reflection. Nevertheless, precise and useful definitions, with regard to the correctness of theoretical statements and corresponding empirical tests, are indispensable. Unclear definitions would not allow a convincing or comprehensible development of theory and formulation of hypotheses. Also, the development of valid measurement instruments is hardly conceivable without a precise definition of the concept (MacKenzie 2003). With a clear focus on research practice, Jaccard and Jacoby (2010, pp. 79ff.) give some advice for common ways to arrive at conceptual definitions:

- Review of extant literature and adoption or modification of existing definitions
- Use of dictionaries and (etymological) dictionaries
- Compilation of essential features of a concept
- Description of the concept in words that are as simple as possible

Definitions of terms are, in principle, free to be chosen. These are only linguistic determinations that do not say anything about reality, insofar as definitions cannot be "right" or "wrong", but only more or less *precise* and *useful*. Essential for this is a largely uniform understanding in the academy community, since otherwise a scientific communication is hardly possible. Here are some "rules" for the formulation of conceptual definitions as Wacker (2004) and MacKenzie (2003) summarize them:

- Definitions should characterize the respective concept as *clearly* as possible and clearly *distinguish* it from other (similar) concepts.
- Definitions should use terms that are as *simple*, *clear* and *concise* as possible.
- Definitions should be *succinct*.
- Definitions should be *compatible* with other definitions in the discipline and previous research.

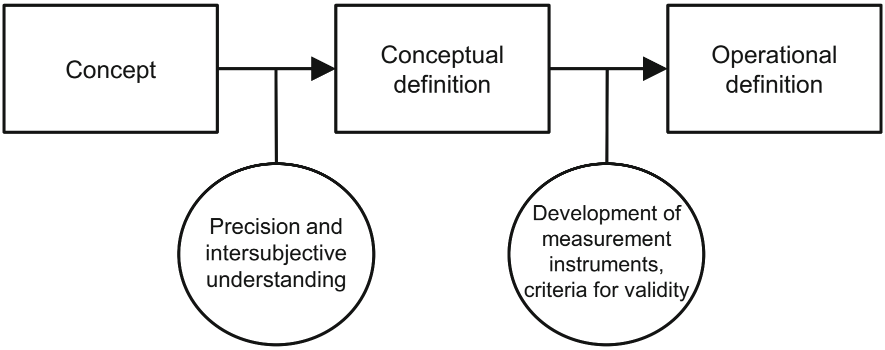

Fig. 4.2 From mental concepts to operationalization

- Empirical studies in which the respective concept plays a role should occur only when the relevant definition has matured to the point that it complies with the above "rules".

With an **operational definition** one goes a step further towards a corresponding measurement for empirical research. "Defining a concept in terms of the instrument or processes used to measure that concept is called 'operationalism' and such definitions are termed operational definitions" (Jacoby and Chestnut 1978, p. 70). We will come back to this process of operationalization and the resulting problems in Chap. 6. Not least, this will be about the correspondence between conceptual and operational definitions. If both (largely) correspond, then one speaks of the **content validity** of a measurement. If there are clear deviations from conceptual and operational definitions, then a corresponding measurement cannot be valid, that is, the result of the measurement has (too) little or nothing at all to do with the concept of interest. Figure 4.2 gives a schematic overview of the steps from the mental concept to the formulation of a conceptual definition to the development of an operational definition, which then allows a corresponding measurement.

4.2 Basic Questions of Theory Building

For decades, the *process* of the emergence of theories in the philosophy of science has received little attention. Some authors (not least Karl Popper) have considered this process to be less structured than it could be and argue that it would be better if the process underwent an analysis by means of psychology, sociology or history of science research. The task of the philosophy of science, from this viewpoint, is concentrated on the following question: "In what sense and to what degree can we trust the results of science?" (Schurz 2014, p. 1). In this context, the distinction between discovery and justification suggested by Hans Reichenbach (1891–1953), which has already been presented in Sect. 1.1, played an essential role. The *context of discovery* is about the development process of theories. Here there exists a wide range of possibilities and hardly fixed rules, as will be seen below. The *context of justification*, on the other hand, refers to rational tests of findings. Discovery contexts were confined to a science-historical interest until the end of the twentieth century, while reasoning and its logic were in the focus of philosophy of science considerations. “The boundary between context of discovery (the de facto thinking processes) and context of justification (the de jure defense of the correctness of these thoughts) was now understood to determine the scope of philosophy of science” (Schickore 2014, p. 6). For details of this development, please refer to Nickles (1985) and Schickore (2014).

A characteristic quote by Karl Popper (2002, pp. 7–8) may illustrate the position of those who do not regard the process of theory formation as an essential subject of philosophy of science:

“I said (. . .) that the work of the scientist consists in putting forward and testing theories. The initial stage, the act of conceiving or inventing a theory, seems to me neither to call for logical analysis nor to be susceptible for it. The question how it happens that a new idea occurs to a man—whether it is a musical theme, a dramatic conflict, or a scientific theory—may be of great interest to empirical psychology; but it is irrelevant to the logical analysis of scientific knowledge. The latter is concerned not with questions of fact (. . .), but only with questions of justification or validity (. . .). Its questions are of the following kind. Can a statement be justified? And if so, how? Is it testable? Is it logically dependent on certain other statements? Or does it perhaps contradict them? In order that a statement may be logically examined in this way, it must already have been presented to us. Someone must have formulated it, and submitted it to logical examination.”

It was not until about 1980 that there was a shift in emphasis towards **discovery** contexts, which was primarily initiated by a correspondingly oriented group of philosophers of science (the “*friends of discovery*”, Hunt 2013). This is not surprising from today’s point of view, because a great number of theoretical and research-related questions arise in relation to scientific discoveries, for example, “Can there be a logic or method of discovery?”; “Must a discovery be both new and true?” (Nickles 2000, p. 85). In addition, there are numerous situations in research practice in which one has to make an effort to build a theory, for example, in the search for explanations for (even practically) relevant phenomena or in the foundation of PhD dissertations. Meanwhile, it is common knowledge that scientific discoveries rarely come about through a sudden single idea (“Eureka!”), but usually it takes longer processes of creation and reviewing. Furthermore, the process of development of a theory is often relevant in regard to credibility (Nickles 2008). In the context of this book, the question of whether scientific discoveries are the subject of philosophy of science is ultimately not really important, because the path to it marks an important task for a researcher.

The term *discovery* is not common in marketing research; it is associated more with the acquisition of knowledge in the natural sciences (for example, certain substances for medical purposes), in astronomy, or (in earlier centuries) in geography. In marketing research, one usually has to deal with theories that have to be developed (often laboriously). Nevertheless, considerations of the context of discovery can be transferred to theory building because, with the development of a (successful) theory, relationships between relevant phenomena are discovered (Hunt 2013).

As has already been noticed, the temporary exclusion of the context of discovery from philosophy of science considerations was also based on the fact that one imagined discoveries as sudden inspirations, the realization of which was hardly comprehensible or even plannable. The experience of extensive work in laboratories, or the processes of theory building, show us that creativity alone is not enough. Rather, the relationship between creativity and the corresponding (empirical) observations and the argumentative justification of the statements and their critical reflection is typical (see Sect. 4.3.2). In this sense, the context of discovery and the context of justification are very often intertwined (Nickles 2008). This experience or perspective is also present in Sect. 4.3 that follows. There, three—by nature very simplified (but common)—ways of theorizing ("Theoretical-in-isolation", Grounded Theory, Empirical Generalizations) are presented.

Section 2.5 presented scientific inferences, which also play an essential role in the development of theories: induction, deduction and abduction. Table 4.1 summarizes the key features of these clauses. Deductive and inductive approaches of theory building (of course) have specific advantages and disadvantages. In **deduction**, existing theories can be linked to corresponding assumptions, concepts and methods, as well as to results obtained in other frameworks (for example, in other scientific disciplines like psychology and consumer behavior), which may increase the efficiency of research. In addition, there is the significant advantage that deduced theories can be relatively well classified in the already existing theoretical inventory. At the same time, this means that completely new perspectives, which might allow a totally different and better understanding of the phenomena of interest, are relatively rare. To that end, **induction** is much more open. Here one begins from the basis of the respective data or experiences to a view corresponding to the respective problem, which are not determined by previous ideas. But this has the disadvantage that theories developed in this way are quite isolated. It should be remembered here (see

Table 4.1 Scientific conclusions at a glance

	Induction	Deduction	Abduction
Basic idea	From many observations to generalization	Derivation of special statements from general statements	Deciding on the most plausible ("best") explanation of a phenomenon
Knowledge development	Expanding knowledge	Truth-preserving	Expanding knowledge
Certainty of conclusions	Uncertain	Certain	Uncertain

Sect. 2.5) that induction is more likely to give rise to hypotheses about laws and lawlike generalizations than to (more complex) theories, which also contain elements that are not observable, and are thus inaccessible to induction (Schurz 2014, p. 53). A frequently used inductive way to generate such hypotheses are empirical generalizations (see Sect. 4.3.4).

Section 2.5 also sketched a third conclusion: **abduction**. These are conclusions from observations on their (assumed) causes. It may be that one makes a selection from a set of well-known relevant hypotheses ("selective abduction") or develops a completely new plausible hypothesis ("creative abduction"). Magnani (2009, see also Schickore 2014) illustrates this with an example from the field of medicine: When a diagnosis is sought for the causes of an illness, the doctor often refers to already known hypotheses about the possible causes of the observed symptoms. In contrast, a creative abduction might be required if it is a new disease, for which there is no experience. Obviously creative abduction leads to more innovative results in theory building than selective abduction.

Even if one does not regard the process of theory building as arbitrary or accidental (see above) and does *not* assume that it usually involves sudden more or less ingenious inspirations, one is, of course, not in a position to have exact rules for this process or to specify "recipes". Therefore the following Sect. 4.3 presents only three different (greatly simplified) approaches to theory building that are quite typical for research practice.

4.3 Approaches to Theory Building

4.3.1 Ideas or Data as a Starting Point?

How can one imagine the emergence or the development of a theory? It already has been suggested that there are no "recipes" or patterns with well-defined procedures (e.g., "steps 1 through n"). If one remembers that there have been several references in this book to empirical testing of existing or proposed theories, then one could get the impression that the first step is in the light of previous experiences, older theories, etc., to make considerations that may/should lead to the design of a new (or modified) theory. This is a process that is specified by the development and use of concepts (see Sect. 4.1), the considerations of relationships between concepts, and the appropriate critical reflections. Ehrenberg (1993) coined the catchy term "**theoretical-in-isolation**" ("TiI") for such an approach. In this view "ideas" are at the beginning of the theory-building process; sometimes, theories from other disciplines are also used, for example, Markov models (Lilien et al. 1992) or approaches from microeconomic theory. Applying more general theories to a particular problem would be a deductive approach (see Sect. 2.5). Section 4.3.2 shows a form of theory formation characterized largely by mental processes.

There is a completely different way of building a theory in research practice, which has been practiced successfully for centuries, especially in the natural sciences. In this type of process observations (e.g., the course of planets in the solar system or growth conditions of certain plants) and the resulting *data* are at the beginning. Based on this, one looks for explanations for these phenomena and builds corresponding theories. These observations are achieved by recording the corresponding natural processes (e.g., astronomy). But there are also countless examples of a different approach. In relevant experiments, phenomena of interest are, so to speak, “generated” in order to be able to make corresponding observations. It is important at this stage that this application of experiments *differs* significantly from the usual approach in marketing research where experiments are conceived of as a particularly rigorous *form of theory testing* (see Chap. 8).

Ian Hacking (1982, p. 71 f.) on the role of experiments in physics:

“Different sciences at different times exhibit different relationships between ‘theory’ and ‘experiment’. One chief role of experiment is the creation of phenomena. Experimenters bring into being phenomena that do not naturally exist in a pure state. These phenomena are the touchstones of physics, the keys to nature and the source of much modern technology. Many are what physicists after the 1870s began to call ‘effects’: the photo-electric effect, the Compton effect, and so forth.”

Why this reference to the role of experiments in other disciplines? It illustrates that the empirical extraction of data can also be the beginning of the process of theory building. In marketing research this is present in two forms: explorative (pre-) studies using qualitative methods (see Sect. 4.3.3) and empirical generalizations (see Sect. 4.3.4). In the latter case, Ehrenberg (1993) identifies the process of theory development on the basis of corresponding results with the term “**empirical-then-theoretical**” (“EtT”).

The different approaches also relate to more fundamental considerations about the process of theory building and testing (see Ehrenberg 1993; Hubbard and Lindsay 2013).

- **“Theoretical-in-Isolation” (TiI)**

The building of theory, shaped by ideas and cognitive processes, with subsequent empirical testing, has been established in marketing research for decades. In this way, a theory orientation of research is guaranteed and an unsystematic collection of any data with the publication of incoherent—sometimes rather random—results can be avoided. However, there are doubts as to whether realistic, empirically successful and enduring findings emerge in this way (Ehrenberg 1993).

Very common in marketing research is the use of the hypothetical-deductive method (see Sect. 5.2), in which hypotheses are derived from theoretical statements, whose confirmation or non-confirmation are the decisive criteria for the evaluation of the developed theory. However, the appropriateness of the hypothetical-deductive method is not unlimited (see Sect. 5.2). There are also increasing doubts about the meaning of the commonly used significance tests (see Chap. 7).

- **"Empirical-then-Theoretical" (EtT)**

Here, various (quantitative) empirical studies, the results of which are summarized in corresponding *empirical generalizations* (see Sect. 4.3.4), are the starting point. Ehrenberg (1993, p. 80) recommends: "Develop (low-level) theoretical model or explanation". Inductive and abductive inferences (see Sect. 2.5) should be in the foreground. The relatively large amount of empirical data shows that a few untypical results have usually no major impact. Therefore it is expected that the overall results reflect systematic patterns, which can be theoretically explained. Tools to identify such patterns might be "exploratory data analysis" (from statistics) and empirical generalizations (see Sect. 4.3.4). "Exploratory data analysis is a descriptive pattern-detection process that is a precursor to the inductive generalizations involved in phenomena detection." (Haig 2013, p. 10).

One popular example for a generalization in marketing is the so called "experience curve", which implies that the unit costs for a product are assumed to decrease in line with increasing experience in manufacturing, logistics, and marketing of a product. This relationship was explored on the basis of a number of empirical studies by the Boston Consulting Group (see e.g. Tomczak et al. 2018).

> Hubbard and Lindsay (2013, p. 1380) explain a central idea of theorizing on the basis of empirical generalizations:
>
> "Successful theoretical interpretation typically comes after a pattern (fact) has been empirically determined. The rationale for this is that explaining particular or solitary events (e.g., individual decision-making) is likely to be unsuccessful because the events tend to be affected by idiosyncratic boundary conditions that are extremely difficult to establish. A better strategy is to anchor theory development around the detection of repeatable facts or regularities in the behavior of phenomena; their relative durability invites an explanation."

- **"Grounded Theory"**

A third way of forming theories is influenced, on the one hand, by experiences from marketing research practice and, on the other hand, by research strategies in other social science disciplines. In marketing research, it has long been common practice to address a novel problem with qualitative (pre-) studies. For example, focus groups, case studies, depth interviews, etc. serve to substantiate the research objectives and to prepare the methodology for a larger main study (e.g., Iacobucci and Churchill 2010). Similar in method, but with a different orientation and a different philosophy of science background, is the approach of the so-called

Table 4.2 Approaches of theory building and roles of empirical data

Characteristics	Approaches of theory building: Theoretical-in-isolation	Empirical-then-theoretical	Grounded theory
Use of empirical data	(Only later for theory test)	Basis for explanations and theory building	Interaction of theory building and empirical data
Type of data used	–	Quantitative	Qualitative
Amount of data (number of cases)	–	Large	Small

"**grounded theory**". The term indicates that in this approach a theory is "grounded" on the extraction and interpretation of empirical observations. This usually involves qualitative research methods. Data collection and theory-oriented interpretation of the observations are closely integrated and mutually influential (for details see Sect. 4.3.3). Table 4.2 summarizes the roles of empirical results in the three approaches of theory building discussed here.

The focus of this section is about theory building; the test of theories is discussed in the following chapter. In addition to theory formation and theory testing, the *modification* of theories is also relevant to research practice (see Sect. 9.4).

4.3.2 A Model of the Development of Theories as a Creative Act

The model of theory building outlined here refers to the "theoretical-in-isolation" approach and builds on the "inductive realist model of theory generation" developed by Shelby Hunt (2013, 2015). This model combines the presentation of processes of theory building and theory testing; Chap. 5 will deal with the latter. Therefore, we now focus on the part of the model that relates to theory building. We have made some modifications to the model designed by Hunt (2013). Figure 4.3 shows the model that we explain in this section.

First of all, we explain the "boxes" (1–8) in the model depicted in Fig. 4.3 according to Hunt (2013, 2015):

1. **Current disciplinary knowledge**: This box represents the current state of knowledge of a discipline (e.g., management research). This includes "*entities*" (e.g., companies, managers, customers) for which we commonly use theoretical concepts (see Sect. 4.1). These items have relevant "*attributes*" in each context, such as the size of the companies, the professional experience of the managers, or the frequency with which customers order. In addition, "*relationships*" exist between the entities, for example, large companies often have more managers or more specialized managers than smaller companies. Certain types of relationships become laws or lawlike generalizations (see Sect. 2.3.1) and certain relationship structures become theories (Hunt 2013). In addition, there are certain research traditions and methodical focuses in a discipline. For instance, a

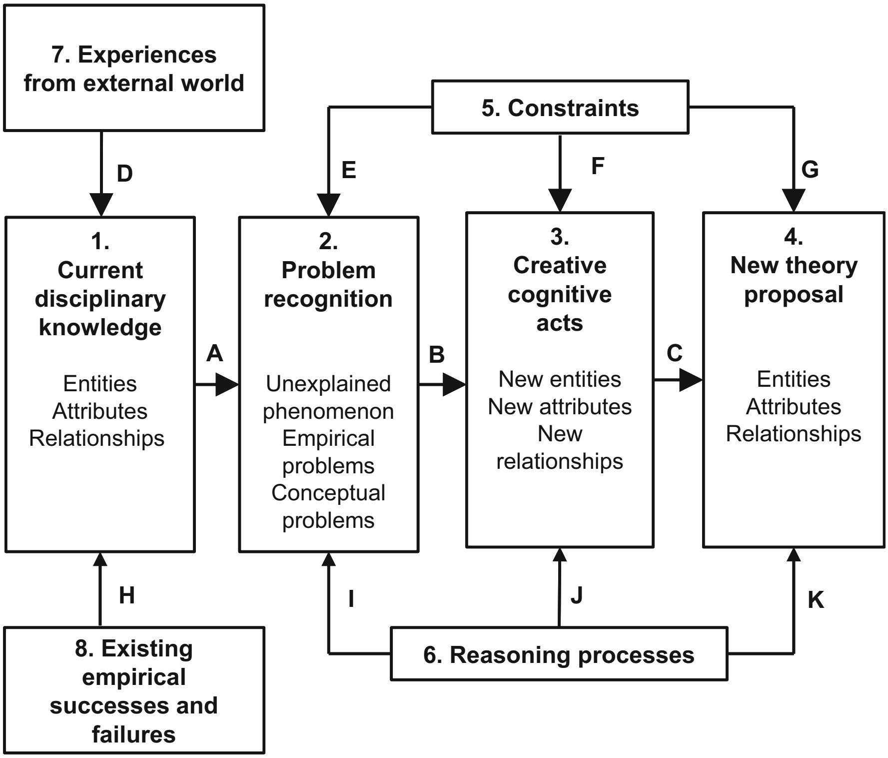

Fig. 4.3 Model of theory generation (adapted from Hunt 2013, p. 64)

behavioral orientation exists in management and marketing research; in the field of accounting and taxation, of course, the relevance of law is particularly great. Associated with this there are also certain methodological emphases in a discipline, in empirical marketing research, for example, the predominantly quantitative orientation.

2. **Problem recognition**: The identification of new and relevant research questions and the answers to these questions are at the core of scientific activities. This may be related to a hitherto unexplained phenomenon (e.g., effects of Internet use on the price sensitivity of consumers), to the lack of empirical confirmation of previously accepted theories, or to a conceptual problem (e.g., logical inconsistency of an existing theory or contradictions between two previously accepted theories).
3. **Creative cognitive acts**: This does not imply that theory generation is usually founded only on a sudden (more or less ingenious) inspiration. Rather, one turns towards a (time-consuming) process in which researchers develop new concepts (e.g., “electronic word of mouth”), observe previously unobserved properties (e.g., credibility of information sources on the Internet) or analyze new relationships (e.g., effects of corporate social responsibility on corporate goals).

The creative process involves not only the development of a new theory and its components, but also creative acts in the substantiation of the theory and in the creation of appropriate empirical tests. The quantity and variety of corresponding ideas have a positive influence on the theory building process (Weick 1989).

4. **New theory proposal**: This box represents the results of the previous cognitive processes. It contains statements about entities as well as their attributes and relationships.
5. **Constraints**: The process of problem recognition and theory building is typically subject to certain constraints. Some of these constraints have already been mentioned in Sect. 3.2 under the headings "Theory-ladenness" and "Social/historical context". This is about the fact that the range of perceived problems and new theoretical approaches can be restrained through experiences, former education of researchers, theoretical and methodological knowledge or through social or economic pressure. In addition, expectations regarding the acceptance of new approaches in the academic community (such as publications and career opportunities) may also have constraining influences.
6. **Reasoning processes**: In science, creativity does not take place—as it does in some artistic areas—in total freedom; rather it is accompanied by the development of comprehensible and well-founded arguments. Therefore, the creative process of theory building is closely interlinked with the substantiation and evaluation of specific elements of the theory. At the least in the formulation and publication of new theories, a substantiation of their statements is indispensable, because otherwise no publication is possible and there is no acceptance by the academic community.
7. **Experiences from external world**: Experiences in reality show which phenomena have not been sufficiently researched and require appropriate theorizing.
8. **Existing empirical successes and failures**: The extent to which the current state of knowledge has proven its worth in empirical investigations (see Sect. 5.3) significantly influences the acceptance of the current state of knowledge of a subject area. Lack of success tends to lead to problem recognition and the goal of new theory building.

Below are brief explanations of the connections (A–K) between the different elements of the model:

- **A, B, C**: Here is the (ideal-typical) sequence of steps of theory generation. This is a simplified model (Hunt 2015) that does not include feedback processes.
- **E, F, G**: The "constraints" discussed above relate to problem recognition (e.g., critical evaluation of marketing practices), creative cognitive acts (e.g., influence of theory-ladenness), and the new theory proposal (e.g., limiting its degree of complexity).
- **I, J, K**: Accordingly, "reasoning processes" are required for problem recognition (e.g., relevance of the research question), creative cognitive acts (e.g., for assumed relationships), and—not least—for a new theory proposal (e.g., references from the literature).

- **D, H**: Here, the influence of experiences from the external world and the extent of the previous empirical successes and failures on the assessment of the current state of knowledge are present.

Chapter 5 (Sect. 5.3) introduces Shelby Hunt's "inductive realist model of theory status", which is closely related to his model of theory generation. This section presents only a part of this model. For a more comprehensive discussion, please refer to the corresponding articles by Hunt (2013, 2015).

4.3.3 Using Grounded Theory for Theory Building

The discussion about the advantages and disadvantages of so-called quantitative (e.g., representative surveys, experiments) and qualitative methods has been conducted intensively—sometimes fiercely—in the social sciences for years. These two approaches are fundamentally different in aspects of philosophy of science and research strategy views (see, for example, Hunt 2010; Neuman 2011). If one assumes—as in this book—a position of scientific realism, then the focus of *qualitative* research is clearly in the development of theories, while theory testing mostly applies to the so-called *quantitative* methods. Even in application-oriented studies, it is assumed that often in the first phases of the study an understanding of the problem has to be developed, for which qualitative methods are more appropriate, because most quantitative methods require a certain degree of understanding of the problem (including appropriate theoretical considerations), for example, for the research design and the development of measures.

Philosopher Gerhard Schurz (2014, p. 37) comments on the dispute over qualitative vs. quantitative methods:

"The ideological polarization between quantitative and qualitative methods that is held by some qualitative researchers (. . .) appears unnecessary and exaggerated. Rather, qualitative and quantitative methods are complementary. The strength of qualitative methods (e.g., case studies, narrative interviews) lies in advance of quantitative methods—in the exploration of relevant parameters and the generation of promising hypotheses. But a qualitative exploration has to be followed up by a quantitative-statistical analysis, as this is the only reliable way to test the generality of one's hypothesis, especially in a situation in which one does not already possess pre-established background knowledge. That qualitative and quantitative methods are complementary in the explained sense is a widely held view among empirical researchers in the social sciences (. . .); however, this view is not uncontroversial (. . .)."

Concerning the interplay between empirical data and theory formation, the **grounded theory** approach has attained special prominence (see, for example, Jaccard and Jacoby 2010, pp. 256ff.). The term "grounded" refers to the fact that in this approach theory does not arise only through more or less abstract considerations, but is developed on the basis of empirical observations. This approach goes back to Glaser and Strauss (1967). Corbin and Strauss (1990, p. 5) identify the central idea in the following way: "The procedures of grounded theory are designed to develop a well-integrated set of concepts that provide a thorough theoretical explanation of social phenomena under study. A grounded theory should explain as well as describe." Important and characteristic is the relationship between theory building and empirical data. "This approach emphasizes an approach of letting theory emerge from data rather than using data to test theory" (Jaccard and Jacoby 2010; p. 256).

The basic idea of the procedure for using grounded theory will probably be particularly clear in comparison to the (deductive) theory test (see Chap. 5). Figure 4.4 shows the fundamentally different goals and procedures of both approaches. In the *deductive* theory test, there is an already existing theory at the beginning, from which individual hypotheses are derived ("deduced") (see Chap. 5). These hypotheses predict to a certain extent the relationship between the variables involved in the external world (if the theory is true). Appropriate methods help measure these variables in reality; they are analyzed with statistical methods and the results allow the assumption of a confirmation or rejection of the hypothesis, which in turn corresponds to a "success" or a "failure" of the respective theory of interest.

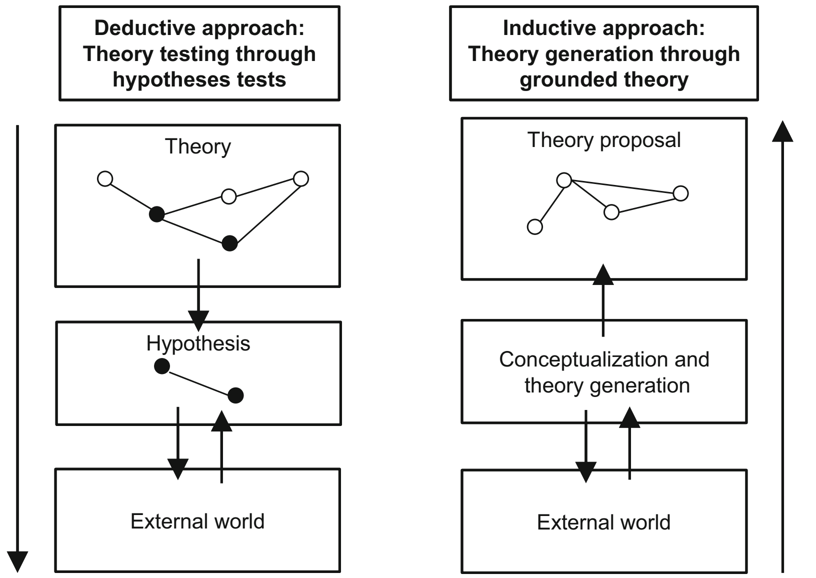

Fig. 4.4 Comparison of deductive theory test and inductive theory generation with grounded theory

In the case of *inductive approaches* of theory generation with grounded theory, the—as far as possible—unbiased (i.e., not theory-laden) observations of numerous aspects of a real phenomenon are the starting point. Based on this, concepts (see Sect. 4.1) for the relevant phenomena are developed. Assumptions about relationships between the various concepts then lead to building blocks of theories, which in turn are combined into a theory proposal. In Fig. 4.4 the arrows pointing in both directions between the fields "external world" and "conceptualization and theory generation" indicate that the latter should be in continuous feedback to the observations in reality (see above).

What is the methodological aspect most characteristic of grounded theory? There are various views in the literature, but there is broad consensus on essential principles (see below). Above all, with regard to the role of prior knowledge—especially from the literature—in the generation of theories, different views are present. Some authors believe that theory generation should be influenced by as little pre-information as possible in order to avoid "channeling" thinking (Jaccard and Jacoby 2010, p. 260) and to allow for openness to novel insights. On the other hand, scientists also suggest that a comprehensive literature knowledge of the interpretation of observations and their theoretical generalization is helpful. In this context, reference can be made to the problem of "theory-ladenness" in Sect. 3.2.

Jaccard and Jacoby (2010, p. 257) on the extent to which prior knowledge should be prominent in research:

"Early writings on grounded theory emphasized that researchers were to set aside, as much as possible, preconceived ideas that they have about the phenomenon of interest and instead let relevant concepts and relationships emerge from rich qualitative data. In later years some grounded theorists have maintained this orientation, whereas others have encouraged the use of prior knowledge and cognitive heuristics to help explore the nature of meanings (. . .)."

Let us now turn to the various methodological principles of grounded theory, of which the most prominent will be briefly presented here, based on Corbin and Strauss (1990). For the purpose of illustration, we add examples (brief corresponding quotes) from studies using grounded theory.

- *Data collection and data analysis are closely intertwined*. This is different from the typical procedure in other studies: "data collection → data analysis → interpretation". Rather, findings gained during data collection are analyzed immediately and will be used in the next steps of data collection (for example, in the next interviews). In this respect, the study design and its various details are typically not determined at the beginning of a study (Yin 2011, p. 77).

> Lynn Isabella (1990, p. 13): "During the data collection phase at the organization studied here, notes on the facts, specific details, and other pieces of information that a number of participants seemed to repeat augmented the evolving theory (. . .), as did ideas generated during periodic debriefing sessions with colleagues."

- *Conceptualizations are the basic steps to theory generation*. Conceptualization also refers to the conceptual and abstracting summary of real phenomena (for example, behaviors or attributes) (see Sect. 4.1).

> James Jaccard and Jacob Jacoby (2010, p. 271): "She then read each interview in earnest, placing a color-coded tag next to any segment that dealt with gender dynamics, and so on for each category of her typology."

- *Summary and linking of concepts to theoretical building blocks*. This process is the second stage of the process of abstraction of concrete perceptions. This concerns summaries and designations of previously developed concepts and considerations about a network of relationships of influencing factors and effects (Corbin and Strauss 1990).

> John Holland (2005, p. 251): "The refined code networks were then used to suggest theoretical constructs and associated maps of causal elements that were constructed into a theory of corporate disclosure in the information market context (. . .)."

- *Selection of cases, informants etc. ("sampling") especially with regard to theoretical enrichment*. An (even approximately) representative sampling is not intended here. Rather, it is about "interesting" cases that bring new insights and also show the limits of these insights. The (targeted) selection of further objects of investigation takes place in the research process depending on the current state of knowledge according to criteria of the respective interests of the researchers ("theory-oriented sampling"). The data collection is terminated when additional objects of investigation promise no further increase in knowledge ("theoretical saturation").

John Holland (2005, p. 250): "Although this sample of companies provided a relatively high proportion of companies from the FTSE 100 (Financial Times Stock Exchange Index), the aim was not to provide 'statistical generalization' as in more conventional hypothetical-deductive research (. . .). The aim was to generate enough company cases to create the conditions for 'theoretical saturation' as recommended by Strauss and Corbin (. . .) (i.e., the point in category development at which no new properties, dimensions, or relationships emerge during analysis)."

- *Ongoing comparisons of research objects or of developed concepts*. Both concepts and cases should be compared with earlier developed concepts and cases studied so far in the research process with regard to similarities or differences. This should lead to a clarification of the conceptualization or the specific selection of further cases ("theoretical sampling"). In this sense, data collection and analysis are closely intertwined.

John Holland (2005, p. 251): "During the processing stages the interview responses of the various subjects were compared, continuously sampled, coded, and compared to each other, using the constant comparative method as recommended by Strauss and Corbin (. . .)."

- *Ongoing creation and archiving of notes ("memos") in the research process*. The developing thoughts on the research process, the development of concepts and steps in theory generation should be written down in a continuous and comprehensive manner in order to make the process and the reasons of theory generation comprehensible ("grounded"!).

John Holland (2005, p. 251): "These resulting codes were then checked to demonstrate that they were connected to original quotations in the source material and thus provided grounding. Codes such as 'private disclosure', the 'company story', or 'understanding state', or 'fragility' were therefore grounded in the original case data."

- *Coding is not considered a preliminary stage to data analysis, but is an integral part of data analysis*. In quantitative studies, the process of coding, that is, the translation of the information collected in appropriately selected symbols (usually numbers), is routine work and there exist certain exact rules that are applied as carefully as possible. By contrast, when using grounded theory, coding is a theoretically and methodologically demanding process that also requires creativity in abstraction and generalization based on a large and diverse set of individual pieces of information.

> Lynn Isabella (1990, p. 13): "I continually modified these initial categories, eliminating old ones and adding new ones to account for newly acquired evidence."

In an editorial for the Academy of Management Journal, Roy Suddaby (2006) has compiled some misunderstandings regarding grounded theory, which are presented here for further clarification:

- "*Grounded theory is not an excuse to ignore the literature.*" (p. 634). Apart from the question of whether it is even possible to liberate oneself from knowledge about and experience of prior literature, ignorance leads to less structured—and thus theoretically less fruitful—results with a low chance of publication. However, it is very important that pre-information does not limit the openness of the researcher.
- "*Grounded theory is not presentation of raw data.*" (p. 635). On the one hand, the results of a grounded theory application should be supported by collected data; on the other hand, grounded theory also includes *abstraction* in the formation of concepts or categories.
- "*Grounded theory is not theory testing, content analysis, or word counts.*" (p. 636). Neither the data collection nor the data analysis in the grounded theory approach would allow the testing of theoretical statements for their correspondence with reality. The scope of grounded theory lies rather in the more or less creative process of theory generation.
- "*Grounded theory is not simply routine application of formulaic technique to data.*" (p. 637). The central components of grounded theory are the interpretation of data and creative theory generation, both of which are processes that are certainly not standardizable and require a substantive understanding of the object of investigation.
- "*Grounded theory is not perfect.*" (p. 638). Grounded theory rules are not always clear and are not applicable in a schematic way, for example, in terms of theoretical saturation, that is, when the selection of additional cases can be finished.
- "*Grounded theory is not easy.*" (p. 639). The rather low formal requirements of grounded theory in comparison with some advanced statistical methods should not lead to the misapprehension that this is to be applied without much prior knowledge. Rather, appropriate experience, careful work and creativity are required.
- "*Grounded theory is not an excuse for the absence of a methodology.*" (p. 640). In the case of grounded theory (and other qualitative approaches), one sometimes finds the misconception that an "anything goes" rule applies. But the relatively high degree of methodological freedom requires careful documentation and justification of the methods used.

Marketing research that applies grounded theory uses these particular techniques for data collection:

- **Qualitative Interviews**: This refers to relatively long, unstandardized or only slightly standardized interviews, with which longer lines of thought or reasoning are collected and the respondents are encouraged to make appropriate reflections and to express them (see, for example, Yin 2011, pp. 134ff.).
- **Qualitative observations**: In doing so, the observer perceives attributes, behaviors and processes with his or her senses (especially, of course, visually and acoustically), without the need for verbal communication (see, for example, Yin 2011, pp. 143ff.). As a rule, the data collected are linked to the observation time or period.
- **Review of archived documents**: In particular, in organizations (e.g., companies, government agencies) there are extensive records in the form of correspondence, protocols, reports, etc. that can provide information about past events and processes.
- **Case studies**: Case studies may relate to processes (e.g., innovation processes), individuals (e.g., brand loyalty development), organizations (e.g., structure and strategy), or other social entities (e.g., families, informal groups). The subject of a case study are real phenomena, not artificially created or hypothetical ones. Typical for a case study is the use of different data sources and survey methods for a comprehensive and in-depth analysis of the case (Yin 2009; Morgan 2014).
- **Group discussions (Focus group interviews)**: This refers to the simultaneous questioning of several (often 6–10) respondents who are allowed to interact with each other. This corresponds to a more natural conversation situation and the participants stimulate each other.

Of course, the important aspect of the connection between empirical data and theory generation in grounded theory is particularly interesting from a methodological point of view. To a certain extent, it proceeds in an iterative manner and leads to a theory draft through a series of steps of theory generation and empirical observations. Figure 4.5 indicates that data collection and analysis intertwine closely in such a research process: At various points in the theory building process, researchers need to decide whether further data collection is helpful or necessary; newly collected data imply that the theory-building process must be continued or modified. The end of the process is a theory proposal, which can be tested later using the standard procedures of theory testing (see Chap. 5).

4.3.4 Empirical Generalizations and Theory Building

An *empirical generalization*, according to Bass (1995, p. G7), is: “a pattern or regularity that repeats over different circumstances and that can be described simply by mathematical, graphic, or symbolic methods. The definition does not assert causality and it does not require that the values of the parameters governing the

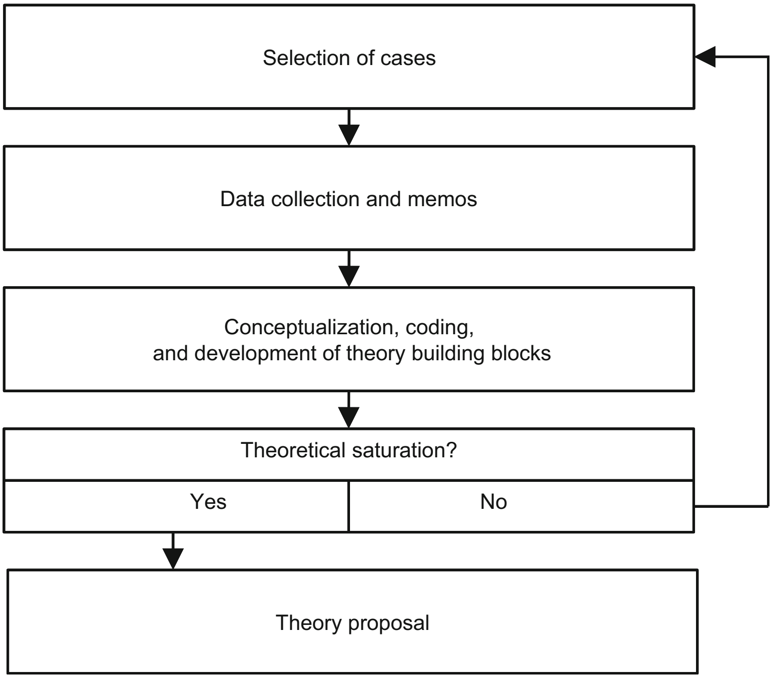

Fig. 4.5 Research process using grounded theory

regularity be invariant over the different circumstances. It does require that there be a pattern, but it does not require that the pattern be universal over all circumstances."

Here is an example of an empirical generalization and its implications. It is a meta-analysis (see Chap. 9) of a total of 114 studies on the impact of market orientation, whose results Dominique Hanssens (2009, p. 5) summarizes as follows:

"Market orientation (i.e., the organizational activities related to the generation and dissemination of and responsiveness to market intelligence, as well as the organizational norms and values that encourage behaviors consistent with market orientation) has a positive effect on organizational performance (r = .32), as measured by profits, sales, and market share. The market orientation–performance correlation is higher in manufacturing businesses (r = .37), compared to service businesses (r = .26). The association is stronger in countries that are low rather than high in power distance (i.e., how society deals with the fact that people are unequal in physical and intellectual capabilities) (r = .33 versus r = .27) and uncertainty avoidance (i.e., the extent to which a culture socializes its members into accepting ambiguous situations and tolerating uncertainty) (r = .34 versus r = .27)."

Because empirical generalizations can only generalize on the basis of existing data, they *do not claim universal validity*. On the other hand, empirical generalizations, of course, benefit from the broadening of the empirical basis and variety of studies on which empirical generalizations often rely, as well as by the multitude of researchers who perform these studies. This diversity serves as triangulation of empirical generalizations: different studies with different methods and data help to clarify how far the generalizability reaches (Kamakura et al. 2014).

Bass and Wind (1995, p. G2) summarize the following typical features of empirical generalizations:

"– Multiple studies: Minimum of two studies.
– Quality: The studies have to be of high quality.
– Objectivity: The studies should be by more than one author.
– Consistency: The results should be consistent under diverse conditions."

Empirical generalizations may also be useful without theoretical explanation. Isaac Newton's law of gravitation, which makes a statement about the effect of forces between two bodies, is an example of a very successful empirical generalization, which was without a theoretical justification for a long time, because it took more than two centuries before Albert Einstein, with his theory of relativity, theoretically explained gravitational interactions. When empirical generalizations are linked with theories, they can serve for both theory building and theory testing. *Theory building* attempts to theoretically explain or justify the empirical generalization determined by data, as in the example of the law of gravitation. In *theory testing*, empirical generalizations help to reduce the problems of testing hypotheses based on single studies. Results of empirical generalizations are less likely to suffer from the errors and limitations of "single-shot" studies.

The literature also discusses whether empirical generalization *can or should be relevant to marketing problems*. Precourt (2009, p. 113) explains the following points supporting the relevance of empirical generalizations for research and practice:

- Empirical generalizations serve as a *starting point for strategy development*. For example, the findings of the experience curve effect—a well-known empirical generalization—can be the starting point for the planning of the output quantity over time.
- Empirical generalizations provide preliminary *rules for management practice*. The experience curve effect offers a rule about the expected cost reduction over time.
- Empirical generalizations provide *benchmarks* for consequences of decisions or changes in planning. Empirical generalizations in the form of elasticities, for example advertising elasticities, provide an orientation for the expected sales changes with a change in the advertising budget.

- Empirical generalizations *serve as a guideline for future research*, as they show, for example, which results are to be expected with regard to a particular variable relationship.

Here is an example of the managerial implications of the results of the empirical generalization outlined in the above example (Hanssens 2009, p. 5):

"Market orientation provides a competitive advantage that leads to superior organizational performance. Even though the implementation of market orientation demands resources, it generates profits over and above the costs involved in its implementation, while concurrently growing revenues. This impact is greater in manufacturing businesses than in service industries. The implementation of market orientation processes should be adapted to local cultural sensitivities."

Empirical generalizations often become **laws** in the natural sciences, e.g., the already mentioned Newtonian law of gravitation. Social phenomena are usually more complex and dependent on a variety of influencing factors. Therefore, the social and behavioral sciences cannot fully explain repeated empirical observations simply by an underlying rule or formula, that is, a law. However, empirical generalizations may lead to **lawlike generalizations**. For this, the empirical data must be consistent with the expected values calculated on the basis of the underlying model or the underlying formula. In addition, empirical generalizations must provide not only a summary description of observations, but also a scientific explanation (see also Sect. 2.3.2).

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