Chapter 4
A Theory of Immigrant Integration and Transnational Activities

Abstract This chapter presents the book's theoretical model, discusses its assumptions, and presents hypotheses on the relation between immigrant integration and transnational activities.

Building on the model of intergenerational integration and its theoretical core, a theory of bounded rational action, the chapter presents a theoretical model that can jointly explain immigrant integration and immigrant transnational involvement. It rests on the simple assumption that immigrants, just as natives, try to improve their well-being within the constraints they are facing. Immigrant integration can be understood as an immigrant's position in and her or his interrelation with the receiving society. This position brings about specific opportunities and motivations for transnational involvement. Vice versa, transnational involvement will influence individual decisions that shape integration trajectories. I develop a formal theoretical model, from which I derive a set of hypotheses concerning a) the determinants of immigrants' transnational involvement and b) the consequences of transnational involvement for immigrant integration.

Keywords Methodological individualism · Rational choice · Bounded rationality · Immigration · Integration · Assimilation · Transnational activities · Transnationalism

The previous two chapters reviewed approaches to the study of immigrant integration and immigrants' transnational involvement and how they relate to one another. These approaches differ not only in their conception of the processes that are behind immigrant integration and transnational involvement, but also regarding the level at which these processes are assumed to operate. Some authors take a macro-sociological perspective, arguing that immigrants' transnational involvement is a product of the present structuring of the global economy. Others focus more on individual immigrants and the actions they take and on the conditions that give rise to these actions. It is indeed reasonable to assume that the structuring of the global economy and advances in telecommunication and transportation technology have their part in creating opportunities and motives for transnational involvement. However, naming these factors alone is insufficient, because this falls short of specifying the precise mechanisms which lead to transnational involvement among immigrants. And without specifying how structural conditions translate into individual border-crossing activities, these approaches are unable to explain a lot of the variance in

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transnational involvement among immigrants. As Portes (1999, p. 464) observes, "[i]t is clear, however, that these necessary conditions do not suffice to bring about the rise of transnational endeavors. Some groups become deeply involved in them while others do not; within specific immigrant communities, some individuals and families create transnational enterprises as a route for socio-economic mobility, while others pursue a more conventional path as wage workers." Explaining these variations requires spelling out how (structural) conditions and individual motivation interplay and bring about immigrants' border-crossing activities. The same holds for immigrant integration. "[A]ssimilation [or integration] is basically the consequence, or outcome, of actions taken by individuals. Groups do not assimilate, people do" (Barkan 2006, p. 9).

Still, the phenomena to be explained clearly lie at the societal level. We are interested in explaining *patterns* of immigrant integration and how they contribute to and are influenced by transnational involvement. With this we have arrived at a fundamental problem in the social sciences. If our goal is to explain certain phenomena, then we need theories which specify the link between an assumed cause and an effect. We want to know *why* immigrants are transnationally active and how immigrant integration is *affected* by transnational involvement. Essentially, these are questions of causality. The social sciences have unfortunately not reached consensus on how to answer these questions. There is even considerable disagreement on how to adequately formulate these questions. It is an ongoing debate that reaches back to the foundations of sociology (Weber 2005/1922; Durkheim 1984/1901). The two main questions in which this problem crystallizes are: (1) What constitutes an adequate explanation? (2) At what level should the explanation operate? These questions are tied to the way one conceives of society and the relation between individual actors and the "social"—the ontological question on the origin and nature of social phenomena and how they relate to the actions of individuals. This problem is also referred to as the micro-macro problem. Although there is not enough space in this work to discuss these issues at length (for detailed discussions see Elster 1982, 1989b; Udehn 2001; Watkins 1957; Huinink 2001; Alexander 1987; Heintz 2004; Hedström 2005, 2008; Hedström and Swedberg 1998), it is, nonetheless, important to establish an understanding of the metatheoretical underpinning of the theoretical approach presented in this chapter.

4.1 Explanations

Explanations provide answers to why-questions, such as: why is an immigrant (group) transnationally active? These types of questions can be distinguished from descriptions, which typically refer to how-questions. Of course, descriptions are a necessary prerequisite for explanations. We cannot explain why immigrant integration is related to transnational involvement if we do not know how. In principle, an explanation consists of two parts: a description of the phenomenon we intend to explain and an account of how the phenomenon is caused. A prominent formalization of

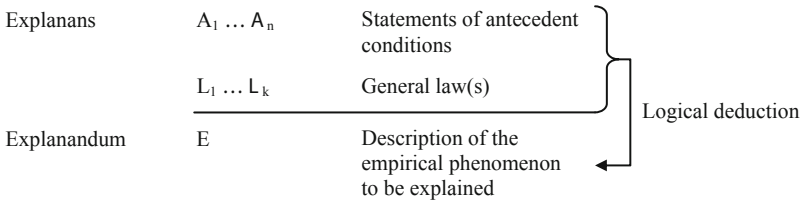

Fig. 4.1 The covering law model of a scientific explanation. (Source: Hempel and Oppenheim 1948, p. 138)

this logic is the covering law model, sometimes also called the deductive-nomological model (DNM), proposed by Hempel and Oppenheim (1948, 1965). According to this model, a scientific explanation consists of the so-called explanandum (that, which is to be explained), an accurate description of the phenomenon to be explained, and the so-called explanans (that, which explains), an explanatory statement, consisting of a general law and antecedent conditions. The general law describes *how* specific *causes* are linked to specific *outcomes*. For instance, these laws come in the form of "if . . . , then . . . " statements. The antecedent conditions are a set of specific initial circumstances that are a prerequisite for the mechanism described in the law to operate. They are so to speak the "if"-component of the "if . . . , then . . . " statement (Esser 1999b, p. 41). A complete scientific explanation thus requires a) specifying a general law that explains the outcome of interest and b) demonstrating that the necessary conditions for the law to apply are met. The structure of the covering law model is displayed in Fig. 4.1. The relationship between explanandum, law, and antecedent conditions can be logically portrayed as $(A_i \wedge (L_i \rightarrow E)) \rightarrow E$.

For a practical example, we can draw on an explanation of transnational activities in the previous chapter. For instance, the literature proposes a 'reactive transnationalism' explanation for transitional involvement (Itzigsohn and Giorguli-Saucedo 2002, p. 772). The argument goes as follows: if immigrants are dissatisfied with their life in the receiving country, then they become transnationally active. In this case, the explanandum is transnational activities among immigrants. The explanans encompasses the 'law'—"if immigrants are dissatisfied with their life in the receiving country, then they become transnationally active"—and the antecedent condition—the dissatisfaction among respective immigrants. If we are able to show that the law is true and the antecedent conditions are met, we can explain transnational activities among immigrants. The covering law model's logic is straightforward, but it is not without problems. First, the model does not rule out the application of logical statements as 'laws' that are descriptively correct but explanatorily incorrect, such as Salmon's example of explaining a man's failure to become pregnant by his intake of birth-control pills (Salmon 1998, p. 340; Salmon et al. 1971, p. 34). A covering law model explanation of this phenomenon goes as follows: no one who takes birth control pills gets pregnant. John takes birth-control pills. Thus, from the fact that John is taking birth control pills we can logically infer that he did not become pregnant. This might be an extreme example, but it is fit to outline the deficiencies of the covering law model.

Not all scientific disciplines perceive the application of such incorrect explanations as problematic as long as the models predict correctly (see e.g. Friedman 1966). Such an instrumentalist perspective is, for instance, common in economics. In this case, theories (i.e. laws) are not evaluated by their conformity to reality, but only by how well their *predictions* conform to reality. However, this approach is explanatorily unsatisfactory, as the example of John and the birth-control pills shows. Although we seem to 'explain' what happened, we cannot clarify why it happened, because we allow for descriptively false assumptions connecting cause and effect. This approach also brings about serious problems in evaluating a theory. If we do not care about a theory's descriptive accuracy, we cannot evaluate a theory's performance according to falsification (Popper 1971), as we cannot attribute disconfirming evidence unambiguously. We are unable to discern whether the antecedent conditions were not met or the theory was falsified (Caldwell 1984, p. 429). The application of the covering law model therefore requires additional constraints, which prevent using causally irrelevant or descriptively inaccurate theories (see Poser 2001, p. 46 ff.). Without going into details of the philosophy of science's discussion on this issue, it is important that the relationship between consequence and cause is as explicit and precise as possible, because precision in mechanisms helps distinguishing between true causality and coincidental association.

A second, perhaps more important problem concerns the model's nomological core. As formulated by Hempel and Oppenheim (1948, 1965), any explanation requires a general law at its core. With the possible exception of theoretical physics, it is seriously questionable whether there are any general laws available in sciences; and this is not a particularity of the social sciences (Poser 2001, p. 62). But we can never ensure that a law is universally true—that its validity is without temporal or spatial restrictions—because the fact that a law has corresponded to reality in the past and present does not imply that it will do so in the future (Hume 1955/1748). Consequently, a theory or a law cannot be proven true; it can only prove to be reliable awaiting falsification (Popper 1971). Thus, the covering law model's core claim that the explanans has to contain a true law cannot be met (Poser 2001, p. 62 ff., 119 ff.). Does this make the covering law model inapplicable? Only if we uphold the strict claim that the mechanism connecting cause and effect has to be a universally true law. This, however, is not necessary. Instead, we can use well established hypotheses or rules as the explanatory core of the covering law model. Indeed, an explanation that relies on well-established hypotheses is compatible to the covering law model, as Poser (2001, p. 69) stresses.[1]

This paragraph does not intend to portray the covering law model as the only viable way of conducting research. There are areas in which the covering law model appears inapplicable, such as evolutionary biology, because this science cannot rely

[1] Moreover, the well-established rule connecting cause and effect is not required to be completely deterministic. Hempel (1968, p. 116 ff.) specifies an 'inductive probabilistic' model which is a weakened version of the covering law model. In contrast to the covering law model, which assumes deterministic relation, that is $(L_i \rightarrow E)$, the inductive probabilistic model assumes probabilistic relation, so that $p(L_i \rightarrow E)$.

on rules that predict mutation (Fischer 2003; Walsh et al. 2002; Goudge 1961).[2] In practice, moreover, inductive and deductive methods complement each other, even in the work of the most fundamental adherent of the covering law model. Thus, the covering law model is best understood as one idealtypic model of an explanation, which can guide our research although we cannot meet its strict requirements.

4.1.1 Excurse: Mechanism-Based Explanations

Recently, an approach has become quite popular in the social sciences which claims to forgo the problems of the covering law model: mechanism-based, analytical sociology as proposed by Peter Hedström (Hedström 2005, 2008; Hedström and Bearman 2009a; Hedström and Swedberg 1998; Diewald and Faist 2011). Similar to the covering law model, an explanation according to this framework consists of the explanandum and the explanans (Hedström and Udehn 2009, p. 28). Instead of relying on general laws to explain, this approach aims at identifying mechanisms which link cause and effect. "The core idea behind the mechanism approach is that we explain not by evoking universal laws, [. . .] but by specifying mechanisms that show how phenomena are brought about" (Hedström 2005, p. 25). At the same time, however, these explanations should be general in the sense that they make no reference to time or place (Hedström and Bearman 2009b, p. 7). Although Hedström repeatedly stresses that mechanism based explanations do not rely on the covering law model's logic (Hedström 2005, p. 15 ff., pp. 32–33; Hedström and Bearman 2009b, pp. 4–5), it is unclear, how the mechanisms at the core of these explanations differ from well-established hypotheses (or rules), which make the core of a deductive-nomological explanation.

Hedström's main criticism of the covering law model is its compatibility with superficial and descriptively incorrect explanations (Hedström 2005, p. 20). This is a valid point, as shown above. However, a mechanism is not immune to being superficial and descriptively incorrect. Descriptive accuracy is something that a mechanism can aim for, but it does not guarantee it. Consequently, analytical sociology does not really provide explanations that depart from the logic of the covering law model. Or as Bunge (2004, p. 207) argues, "no law, no possible mechanism; and no mechanism, no explanation." We can only speculate why Hedström insists that mechanism-based, analytical sociology does not follow the covering law model. Opp (2007, p. 120) suggests that this might be a strategy to escape the stigma attached to this tradition.[3]

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[2] Still, the applicability of the covering law model in this science is debated (see, for instance, Ruse (1973)).

[3] The same holds for the theory of action that Hedström proposes—the Desires-Beliefs-Opportunities (DBO) theory (Hedström 2005, p. 38 ff.) In this model, a desire is defined as a wish or a want, a belief as a proposition about the world, which the actors hold to be true, and the opportunities make up the actors set of possible actions. "The cause of an action is a constellation of desires, beliefs, and opportunities in light of which the action appears reasonable" (Hedström 2005, p. 39). DBO theory bears a lot of resemblance to rational choice theories, although Hedström

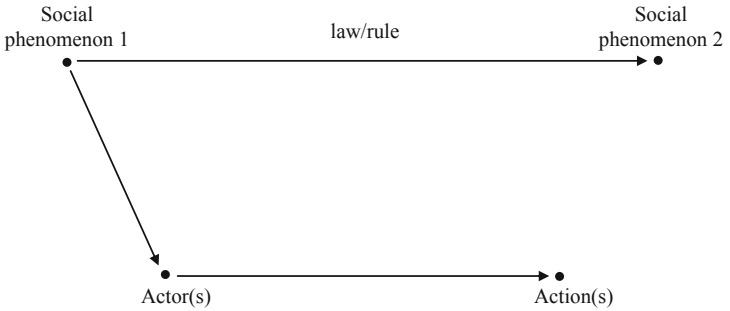

Fig. 4.2 Macro-micro relation in methodological holism. (Source: Modified from Esser 1999a, p. 17)

4.1.2 Holism and Individualism

Having established how an explanation can look like, the question remains at what level the explanation should operate. Within the social sciences, there are two central metatheoretical approaches, which provide different answers to this question. On the one hand, there is methodological holism, which views society and other social entities as a kind of ordered whole. On the other hand, there is methodological individualism, which views society and social entities as an aggregation of its parts. Methodological holism posits that social entities, be they groups, classes, systems, societies, or the like, are wholes which are more than the mere sum of their parts. Holism therefore calls for explanations that operate at the level of these social entities, because "[. . .] social systems constitute 'wholes' at least in the sense that some of their large-scale behavior is governed by macro-laws which are essentially *sociological* in the sense that they are *sui generis* and not to be explained as mere regularities or tendencies resulting from the behavior of interacting individuals. On the contrary, the behavior of individuals should (according to sociological holism) be explained at least partly in terms of such laws (perhaps in conjunction with an account, first of individuals' roles within institutions, and secondly of the functions of institutions with the whole social system)" (Watkins 1957, p. 106; italics in the original).

Methodological holism thus builds on Durkheim's claim (1984/1901) that sociology should uncover the 'laws' which govern the 'behavior' of social entities. This is displayed in Fig. 4.2. Social phenomena are situated at the macro-level and so should explanations—as displayed by the continuous arrow connecting social phenomenon 1 and social phenomenon 2. While events on the micro-level are influenced (or determined) by the macro-level, this relation is unidirectional: there is no micro-to-macro linkage.

(2009b, p. 22; 2005, p. 41) insists that DBO is not a rational choice theory; if anything, rational choice is a specific type of DBO theory. Indeed, DBO theory forgoes some assumptions of strict utility maximization theories (for a thorough discussion, see Elster (1994)). However, DBO theory equals wider versions of rational choice (Opp 2007, pp. 118–119) that are commonly used in sociology today.

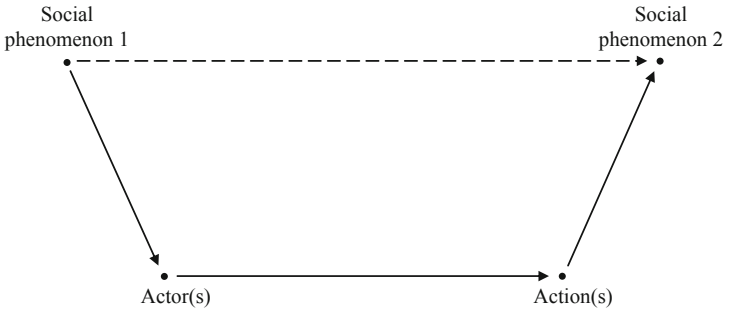

Fig. 4.3 Macro-micro relation in methodological individualism. (Source: Modified from Esser 1999a, p. 17)

Methodological individualism conversely assumes that what we perceive as an ordered whole is an aggregation of its individual parts. Adequate explanations have to concentrate on the (inter)action of the components of which the larger whole is comprised and how this interplay gives rise to what appears as macro-level phenomena. Prominent within methodological individualist approaches is the assumption that individuals and their (inter)actions are the basic components. As Elster (1982, p. 453) puts it, "all social phenomena (their structure and their change) are in principle explicable only in terms of individuals—their properties, goals, and beliefs." Any seemingly emergent character of social phenomena disappears by dissecting the interplay of the individual parts. "According to this principle the ultimate constituent of the social world are individual people who act more or less appropriately in the light of their dispositions and understanding of their situation. Every complex social situation, institution, or event is the result of a particular configuration of individuals, their dispositions, situations, beliefs, and physical resources and environment" (Watkins 1957, pp. 105–106). This is displayed in Fig. 4.3. There is no direct connection between social phenomenon 1 and social phenomenon 2. Any ostensible connection between macro-level phenomena comes into being because of configurations and consequences of individual (inter)actions.[4]

Methodological individualism hence assumes that social phenomena at the macro-level can only be adequately understood and explained via reconstructing how (aggregations of) individual (inter)actions produce these phenomena on the macro level (Huinink and Schröder 2008, p. 31).

There is no simple answer to the question which approach is adequate, because it is an ontological question. No matter how elaborately we argue in favor for one or the other position, the decision always contains an arbitrary element: our *beliefs* about the nature of society. But the perhaps ontologically most reasonable

[4] The graph depicted in Figs. 4.2 and 4.3 is sometimes referred to as the "Coleman boat" or the "Esser bathtub," because it takes a prominent position in their work. It is true that Coleman (1986) and Esser (1993) have made this stylized representation of micro-macro link popular. However, it seems to originate from McCelland (1961).

hypothesis (Hedström 2008, p. 35) is to assume that social phenomena are produced, reproduced, and changed by individual actions: While we cannot plausibly imagine a society without human beings—despite seemingly autopoetic characteristics of social systems—we can imagine human beings without society (Hobbes 1969/1651), even though this is at best unrealistic too. The causal importance of individual actions would become obvious if we had a 'pause button,' which, if pressed, would freeze all individual actions: All social processes would instantly stop (Hedström 2008, p. 47). Moreover, the social sciences have, since their foundation, failed to provide reliable rules at the macro level. According to Esser (1999a, p. 7), there have been numerous candidates: the 'iron law of oligarchy,' according to which all forms of organizations will eventually develop into oligarchies (Michels 1925), Durkheim's (1981/1888) law of contraction, according to which societal differentiation processes will inevitably decrease the size and the power of the family circle, the race-relation-cycle (Park 1950), Weber's (2002/1920) conception of the interrelation of a protestant ethic and capitalism, and many more. But all these 'laws' are only ideal-typical descriptions of particular historic conditions and processes. None qualifies as a reliable rule that can provide the core for an explanation (for detailed discussions see Elster 1982; Popper 1974; Boudon 1983). Recalling the debate on the similarities and differences between contemporary and past migration, as discussed in Chaps. 2 and 3, it appears that explanations with a micro sociological core offer a distinct benefit: These explanations are applicable even in the face of changing circumstances, because these circumstances are not substantive parts of the theory but antecedent conditions shaping opportunities and motives for individual actions.

This work takes the position of 'structural individualism' (Wippler 1978), a variant of methodological individualism. The ontological positions of structural individualism and methodological individualism are the same. Both share the assumption that the social and all social phenomena are ultimately made up of individual actions. Structural individualism, however, differs from other, more restrictive forms of methodological individualism "in attributing substantial explanatory importance to the social structures in which individuals are embedded [. . .]" (Hedström and Bearman 2009b, p. 4). Certain parts of an explanation, e.g. the opportunity structure, shared beliefs and values, etc., which themselves constitute phenomena to be explained, enter the explanation as though they were exogenously given and it is assumed that they assert a causal influence on individual actions. Social phenomena which precede social situations thus constitute the antecedent conditions for individual (inter)actions in these situation (Esser 1999a, p. 17). Structural individualism thus accepts 'unexplained social phenomena' as part of an explanation. A strict version of methodological individualism does not attribute any causal power to social phenomena themselves (Udehn 2001, p. 318), precisely because they do not have a reality *sui generis*. They, too, are caused by individual actions and only individual actions can logically be a cause of anything. Relaxing methodological individualism is a pragmatic necessity. Using a strict version of methodological individualism would make any attempt to explain societal phenomena impossible. Any antecedent conditions foregoing individual (inter)actions would have to be endogenized, leading to an infinite regress (Hodgson 1986, p. 218); we would have to go back indefinitely

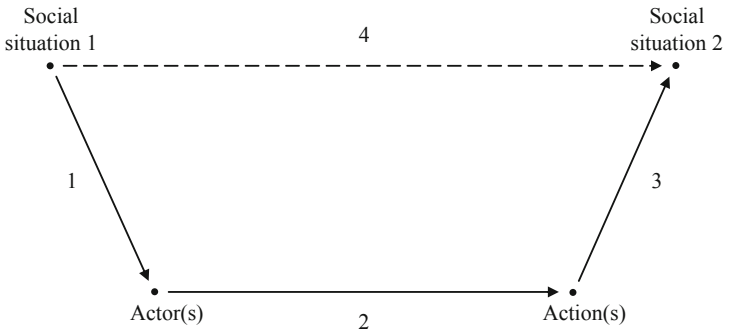

Fig. 4.4 The three explanatory steps. (Source: Modified from Esser 1999a, p. 17)

in time to reach a satisfactory explanation. Therefore, for heuristic purposes, we treat social phenomena *as if* they have a reality of their own and exert a causal influence on individual actions.

4.1.3 Explanatory Sociology

Following this, an explanation should have a micro-sociological core and this core should be a well-established, general hypothesis on how actors act. There are several sociological traditions providing micro-sociological grounded explanations to social phenomena. In the following, I will concentrate on explanatory sociology, the approach the model of intergeneration integration builds on (Chap. 3). Explanatory sociology explicitly aims at explaining social phenomena, such as network structures, typical beliefs, cultural tastes, common ways of acting, or patterns of immigrant integration, and so forth (arrow 4 in Fig. 4.4). Explaining the production, reproduction, or change of social phenomena consists of three steps (Esser 1999a, p. 15). The first step lies in determining the so-called 'logic of the situation' (1), which is a stylized description of the actor's situation by relying on so-called 'bridge hypotheses.' They are called bridge hypotheses, because they are designed to link the greater historic social situation with the individual actor and his or her subjective beliefs and motives. The second step consists of determining the 'logic of selection' (2) by using a theory of action that is able to explain why an actor has chosen or chooses a particular course of action, given the situation he or she is in. The third step is the 'logic of aggregation' (3), which specifies rules of aggregation that indicate how individual actions give rise to specific social phenomena. I will discuss these three logics in more detail below and start with the theory of action.

4.2 Theory of Action

The theory of action is an important part of an explanation, because it serves as the explanation's nomological core—it is the well-established, general hypothesis. The social and psychological sciences have developed an array of action theoretical models which could serve as the nomological core of an explanation. So which to choose? The literature offers several criteria that a theory of action has to meet: causality, precision, universality, simplicity, extendibility, modelability, and reliability (Esser 1999b, p. 137 ff.; Lindenberg 1985, p. 108; Esser 1999a, p. 241 ff.). Most of these criteria are common sense and do not need further elaboration. It is self-evident that a theory (of action) has to be reliable. But the other criteria are also straightforward if we orient ourselves at the covering law model (or at other analytical propositions such as the mechanism approach): If we are interested in a causal explanation of a specific phenomenon, then the need for precision and the ability to model causality follows naturally. The causal link is an inherent element of such an explanation. Moreover, the causal link between the antecedent conditions and the outcome (i.e. the action) must be as precise as possible, as precision reduces a theory's susceptibility to descriptive inaccuracy. The criterion of universality is also justified by the covering law model, notwithstanding the fact that we do not possess universally true theories. And a theory is all the more useful the more it can be extended to incorporate new findings.

When it comes to the theory's simplicity, things are more complicated. Making simplicity a necessary condition for any theory carries with it assumptions about relationships in the empirical world. These might as well be false. "The principle of choosing theories that imply a simple world is a rule that clearly applies in situations where there is a high degree of certainty that the world is indeed simple. Scholars of physics seem to find parsimony [i.e. simplicity] appropriate, but those in biology often think it is absurd" (King et al. 1994, p. 20). An alternative criterion can be that theories should maximize leverage, meaning that they should explain as much as possible with as little as possible (King et al. 1994, p. 29 ff.; Friedman 1966, p. 14). In many instances, this principle will produce identical outcomes to the simplicity principle. Maximizing leverage is a principle of effectiveness that often translates into building a simple theory. But the maximizing leverage principle does not make simplicity a criterion itself and thus it does not rest on the problematic assumption that the world (and relations therein) is simple. Instead, it is a ratio of explanatory power and simplicity. If we have two competing theories with the same explanandum, we should choose the simpler one. This principle is also compatible with Lindenberg's (1992) method of decreasing abstraction, which proposes to build theories that are as simple and abstract as *possible* and as realistic and complicated as *necessary*. The theory should be extended, i.e. made more complicated, only if it proves to be inadequate in its current, simpler formulation. The maximizing leverage principle moreover has a natural affinity to Popper's notion that we should favor theories with high empirical content (Popper 1971, p. 83 ff.). A theory's empirical content corresponds to the class of its potential falsifiers. Its empirical content increases with

the number of cases in which it can be falsified. The notion to explain as much as possible with as little as possible implies maximizing a theory's empirical content.

4.2.1 Intentional Actions

Among the theories meeting the discussed criteria, theories of intentional actions (Wright 1971) that explain actions from an interplay of individual motives, beliefs, and social structure, are particularly well established and reliable (for an overview see e.g. Hechter and Kanazawa 1997, p. 196 ff.). In a very basic formulation, such a theory assumes that persons are interested in maintaining favorable conditions of their life and in improving those aspects which are unfavorable (Esser 2001a, p. 293). Given a person's interest and the range of possibilities, she or he will choose the option that promises to be the most rewarding. The connection between motive, belief, and action can be formally displayed. Assuming that an actor i has a certain motive, or goal, G_i and she or he believes that this goal can be reached via action A, then this can be stated as $(G_i \rightarrow A)$, i.e. reaching the goal G_i implies A. A course of action (A) can thus be explained by referring to the actor's motive (G_i), and her or his belief $(G_i \rightarrow A)$. The complete explanation can then be stated as $(G_i \wedge (G_i \rightarrow A) \rightarrow A$ (Esser 1999a), which resembles the structure of the covering law model.[5] Of course, there might be more than one way to reach a goal, as individuals typically have an (albeit a structurally limited) array of actions to choose from.

Hence, such a theory specifies four aspects. First, it asserts that individual actors have desires (or preferences or motives), second, that they have beliefs (proposition about the world), third, that they face restrictions (or opportunities) defining the frame of feasible actions, and fourth, such a theory lays out a decision rule, for instance "within the feasible set of actions compatible with all the constraints, individuals choose those they believe will bring the best results" (Elster 1982, p. 464). A theory of intentional actions does not necessarily imply that an individual's decision is optimal or objectively rational. Beliefs can be insecure and need not match reality. Actors (can) consider normative aspects in their decision and they do not maximize utility from an objective point of view—as opposed to the assumptions in neo-classical microeconomic theory.

Among potential theories that fulfill these criteria, subjective expected utility theory (hereafter SEU) appears especially well suited. This theory has its roots in the works of statistician Daniel Bernoulli (1954/1738), John von Neumann and Oskar

[5] To be precise, this is not the covering law model but the so-called practical syllogism (Poser 2001, p. 51) which originates with Wright (1971). Wright, however, thought of the practical syllogism as an *alternative* to the covering law model. "The practical syllogism provides the sciences of man with something long missing from their methodology: an explanation model in its own right which is a definite alternative to the subsumption-theoretic covering law model" (Wright 1971, p. 29). It is, nonetheless, debated whether the practical syllogism is compatible with the covering law model or whether it even presupposes a covering law (Apel 1984; Tuomela 1976; Martin 1990).

Morgenstern (1944), and Leonard Savage (1954). SEU theory rests on six core assumptions (see Esser 1999a, pp. 248–259 for a detailed discussion): first, SEU theory assumes that an action encompasses a selection between different alternatives. This selection does not have to be conscious and deliberative in every situation. Second, SEU theory assumes that every selected course of action has consequences. Third, these (potential) consequences are evaluated by the actor, in the sense that these consequences are seen to be more or less desirable. Fourth, actors have subjective assumptions about the probabilities that a certain action will result in a certain consequence. Fifth, the alternative courses of action are evaluated by the actor according to these consequences and probabilities. Sixth, the actor chooses the action that she or he perceives as most likely to bring about the desired consequences. Or, to put it more simply, the actor will choose the action that she or he considers to be most beneficial.

A strength of SEU is its ability to formally model the decision process. The first assumption states that an actor chooses between different alternatives. In order to explain why an individual actor has chosen a specific alternative A_i, we consequently have to characterize the set of alternatives. The set of alternatives can be written as a vector $\mathrm{A} = (A_1, A_2, A_3, \ldots, A_n)$ (Esser 1999a, p. 252). This vector describes the alternative courses of action that an individual can choose from.[6] Every course of action produces certain outcomes. The set of outcomes is denoted by $\mathrm{O} = (O_1, O_2, O_3, \ldots, O_n)$. These outcomes are evaluated as more or less desirable. Hence actors associate different utilities with different outcomes. Thus, we have a vector $\mathrm{U(O)} = (U(O_1), U(O_2), U(O_3), \ldots, U(O_n))$ which captures the subjective utilities associated with the respective outcomes (Esser 1999a, p. 254). For reasons of simplicity we notate this as $\mathrm{U} = (U_1, U_2, U_3, \ldots, U_n)$.[7] In most situations individual actors do not have perfect information, as assumed, for instance, in classical microeconomic theory. Thus, they cannot perfectly predict the precise probability of how alternative A_i will lead to outcome O_j and hence utility U_j. But actors have subjective beliefs about the probabilities of certain outcomes and associated utilities. We denote these subjective probabilities as p_j. The set of expectations for an actor

[6] It is logically necessary that the alternatives are mutually exclusive and that in any situation an actor has at least two alternatives to choose from. These assumptions are unproblematic. Even in situations of extreme structural pressures and extreme adverse consequences, individual actors can still choose—at least in principle (Esser 1999a, p. 251). It is not necessary to describe the—almost infinite—set of all potential alternatives, but only those that are relevant within a specific situation.

[7] The way in which individuals assign subjective utilities to essentially "objective" outcomes is described via a utility function. Esser (1999a, p. 253) thus distinguishes between objective values of an outcome $V(O_i)$ and the subjective utility $U(O_i)$. This is an important distinction, in particular if we are interested in how seemingly equivalent outcomes are valued differently. Prominent examples are divergent evaluations of equal outcomes that are either framed as gains or losses or the often observable risk-aversion of individuals (see Kahneman and Tversky 1979; Tversky and Kahneman 1992). Although this certainly is an important and interesting topic, it is not the focus of this work and the distinction between $V(O_i)$ and $U(O_i)$ will not be used here.

can be written as (Esser 1999a, p. 256)

$$\mathrm{P} = \begin{array}{c|cccccc} & U_1 & U_2 & \cdots & U_j & \cdots & U_n \\ A_1 & p_{11} & p_{12} & \cdots & p_{1j} & \cdots & p_{1n} \\ A_2 & p_{21} & p_{22} & \cdots & p_{2j} & \cdots & p_{2n} \\ \vdots & \vdots & \vdots & & \vdots & & \vdots \\ A_i & p_{i1} & p_{i2} & \cdots & p_{ij} & \cdots & p_{in} \\ \vdots & \vdots & \vdots & & \vdots & & \vdots \\ A_m & p_{m1} & p_{m2} & \cdots & p_{mj} & \cdots & p_{mn} \end{array}$$

Within one alternative A_i the probabilities add up to one so that $\sum p_{in} = 1$. The formal notion of the evaluation of an alternative then follows as $EU(A_i) = \sum p_{ij} \cdot U_j$ (Esser 1999a, p. 257). The expected utility (EU) weights for the complete set of alternatives is then given in matrix notation as

$$\mathrm{EU}(A) = \mathrm{p} \cdot \mathrm{U} \tag{4.1}$$

where EU(A) is a column vector with m elements, p is an n x m matrix, and U is a column vector with n elements. Let us consider a hypothetical example with two alternatives, A_1 and A_2, and three outcomes

$$\begin{aligned} EU(A_1) &= p_{11}U_1 + p_{12}U_2 + p_{13}U_3 \\ EU(A_2) &= p_{21}U_1 + p_{22}U_2 + p_{23}U_3 \end{aligned} \tag{4.2}$$

Imagine A_1 denotes being transnationally active—for example, visiting the country of origin. A_2 denotes the alternative of staying in the receiving country which corresponds to maintaining the status quo. We write $A_1 = A_{TN}$ with the subscript TN for transnational and $A_2 = A_{SQ}$ with subscript SQ for status quo. The two alternatives do not produce the same consequences. While visiting the country of origin entails seeing friends and relatives there, staying in the receiving country does not. We denote this outcome as $O_1 = O_{TN}$ and the corresponding evaluation of it as $U(O_1) = U(O_{TN}) = U_{TN}$. As staying in the receiving country will not bring about O_{TN}, it follows that $p_{21} = 0$. We have to keep in mind that we are modeling the decision process, not the actual course of an action. Since the individual actor cannot be sure that her or his decision to follow a certain course of action will produce the expected outcomes (hence in most cases $p_{ij} < 1$), there is always the possibility that her or his attempt will be unsuccessful. In our example, the flight to the country of origin could be cancelled, the borders could be closed, or the like. In any case, the immigrant will not be able to undertake the trip. We denote $p_{11} = p_{TN}$, the outcome status quo as $O_2 = O_{SQ}$, and the corresponding evaluation of it as $U(O_2) = U(O_{SQ}) = U_{SQ}$. Maintaining the status quo corresponds to refraining from doing anything at all and we can reasonably assume that $p_{21} = p_{SQ} = 1$. A visit to the country of origin, of course, involves costs, such as traveling costs, which we capture with O_3 and $U(O_3) = U_3$. These costs will only occur if the individual decides to visit her or his country of origin and thus $p_{23} = 0$. For reasons of simplicity, we write

$U_3 = -C_{TN}$ and assume that the costs occur with certainty so that $p_{13} = 1$. If the trip to the country of origin fails, the immigrant will once again face the status quo. Since within one alternative $\sum p_{in} = 1$ it follows that $p_{12} = (1 - p_{TN})$. We can then simplify the above equations

$$EU(A_{TN}) = p_{TN}U_{TN} + (1 - p_{TN})U_{SQ} - C_{TN} \tag{4.3}$$

$$EU(A_{SQ}) = 0 \times U_{TN} + (1 - 0)U_{SQ} - 0 \times C_{TN} = U_{SQ} \tag{4.4}$$

SEU theory then assumes that an actor chooses the course of action that she or he perceives to be most beneficial. Hence, the immigrant chooses to visit her or his country of origin if she or he perceives this to be more beneficial than staying in the receiving country. We can depict this condition by the following inequality

$$EU(A_{TN}) > EU(A_{SQ})$$

$$p_{TN}U_{TN} + (1 - p_{TN})U_{SQ} - C_{TN} > U_{SQ} \tag{4.5}$$

This can be simplified into (Esser 2006, p. 40)

$$U_{TN} - U_{SQ} > \frac{C_{TN}}{p_{TN}} \tag{4.6}$$

This is an intuitive condition: The immigrant will only become transnationally active if the difference between the utility associated with being transnational active and the utility of the status quo is higher than the ratio of costs and success probability. The former, the difference in the associated utilities, is the motive for an action, whereas the latter, the ratio of costs and success probability, can be understood as the (structural) opportunity for such an action (Esser 2006, p. 41). If the courses of action do not differ in their expected utility, i.e. $(U_{TN} - U_{SQ}) \rightarrow 0$, then it is unlikely that the inequality will hold. Likewise, if the costs are high or the probability is low, it is unlikely for the inequality to hold, too. From this inequality it also becomes obvious how important the probability p_{TN} is. If p_{TN} is very low, C_{TN}/p_{TN} will approach infinity and it is very unlikely that the difference in the utility terms is large enough to balance this out. This already indicates how important (beliefs about) structural opportunities and restrictions are (Esser 2006, p. 42).

Returning to the aforementioned criteria for theories of action, the discussion of SEU theory shows that it indeed meets those criteria. It is a general theory in the sense that it relies on a general principle: Actors choose the course of action that they perceive to be most beneficial. By relying on this principle the theory shows a lot of leverage. The ability to formally model decision situations with SEU theory allows for a high degree of precision and we can infer causal claims from it. It is extendable to include new developments (see Kroneberg 2005, 2007, 2008; Lindenberg 1996a, 2001; Lindenberg and Frey 1993) and it has proven to be very reliable in many areas of sociological inquiry (Hechter and Kanazawa 1997, p. 196 ff.).

4.2.2 Criticisms of Rational Choice

Although I have avoided using the term rational choice until now, SEU theory is obviously a variant of rational choice theory. The term rational can cause confusion, because at times it is understood as implying objective rationality and optimality as in (neo)classical microeconomics. But the discussion of SEU theory shows that not all variants of rational choice rely on these assumptions. Still, rational choice theories and variants thereof have been subject to intensive and manifold criticism, targeting the theories' simplifying approach and its potentially unrealistic assumption about human decision making and acting. We can find three principal arguments that are put forth against rational choice: (a) *many* (*everyday*) *actions are not ends-oriented* (*or instrumentally rational*) *and thus cannot be explained with rational choice*, (b) *even in situations in which individuals act purposefully and in an ends-oriented way, rational choice does not predict correctly*, and (c) *rational choice is tautological*. The last point might appear surprising considering the first two. But as we will see, not all of these points are relevant for different versions of rational choice theory.

Let us consider the first point, which deals with the (unrealistic) assumption that all human action is carried out with deliberate consideration of means and consequences. Weber (2005/1922, p. 17 ff.) already proposed to distinguish between four ideal-typical forms of action: instrumentally rational action, value-rational action, affectual action, and traditional action. Only instrumentally rational action unambiguously corresponds to actions as modeled with rational choice. While the interpretation of value-rational action is debated regarding the role rationality plays in it (Kroneberg 2007; Schluchter 1979; Weiß 1989), it surely differs from instrumentally rational action, as it is not carried out anticipating consequences but is instead oriented at the action's intrinsic value. As Elster (1989a, p. 98) puts it, while instrumentally rational action is conditional (upon means and ends), value-instrumental (i.e. normative) action is unconditional. It is understood that many everyday actions are not instrumentally rational. And it is true that rational choice, especially in its strict versions, encounters problems explaining actions that are not ends-oriented.[8] But we should keep in mind that the above distinction is ideal-typical. Empirically, concrete courses of action are likely to contain elements of more than one type.

Regarding the second point, (psychological) research on rational choice has shown that its predictions do not always accord to human decision making even in situation of ends-oriented action. The famous work of Daniel Kahneman and Amos Tversky (2003, 1979, 1984), who extensively studied human decision making and acting, shows that the assumptions of the micro-economic model of rational action

[8] However, this issue is debated. One could argue that value-rationality is well compatible with the perspective of bounded rationality (Simon 1982, 1957). Norm-orientation can be an efficient heuristic in an overly complex world or it can endow individual actions with meaning (Hayakawa 2000), which motivates individuals to follow norms. But norms or values can also be rational in the sense that people have 'good reasons' to follow them. This is at the core of Boudon's (1996; 2009) conception of 'axilogical rationality', in which he stresses that Weber's value-rationality is not mere value-conformity (see Lindenberg (2000) for a critique).

are violated in many situations. For instance, individual actors are influenced by the framing of situations, are inconsistent in their assessment of situations, display loss aversion, etc. Individual actors are cognitive misers with only limited cognitive resources available, often relying on heuristics exhibiting only a "bounded rationality" (Simon 1957, 1982). While this is certainly true, we should note that a good part of the criticism directed at rational choice is targeted at the theory of action as used within (neo)classical microeconomics. The sociological versions of rational choice explicitly include subjective beliefs of individuals, building on those very human "abnormalities" that challenge microeconomic theory.[9] Concerning these two points, there is a very important qualification to be made. Indeed, rational choice sometimes faces difficulties in explaining individual courses of action, most often because human beings consider aspects that theory has not incorporated. Still, rational choice does quite well when it comes to explaining *changes* in behavior depending on the properties identified as important by the theory. To give a practical and well known example, experimental studies have repeatedly shown that rates of cooperation in social dilemma experiments, e.g. unrepeated games in the form of prisoner's dilemmas, can be much higher than predicted by rational choice (see for instance Andreoni 1995; Cookson 2000)—narrow rational choice theory predicts no cooperation at all for these games. Obviously, the participants' actions are (also) guided by normative considerations and they might be less reflective than assumed by rational choice. At the same time, however, these studies show that individual actions are indeed influenced by factors deemed to be central by rational choice theory, for instance group size, size of the incentives, etc., and, more importantly, by changes in those factors (Diekmann and Voss 2004, p. 20). This means that rational choice theories identify relevant and important aspects that determine decision making and acting but that they are incomplete, because they do not take all relevant factors into account. Does this make rational choice useless? The question is whether rational choice theories are only incomplete or incorrect. Descriptively incomplete theories (and incomplete explanations), which concentrate on certain aspects and blind out others (Sen 1980), differ fundamentally from incorrect theories and explanations. Hedström (2005, pp. 62–63) illustrates this in the following way: if we have a set $A = \{a, b, c, d\}$, then assuming $A = \{e, f\}$ is descriptively false, whereas $A = \{c, d\}$ is descriptively incomplete. The latter probably applies to all theories—at least in the social sciences—since a theory always stylizes relationships and concentrates on some aspects and ignores (irrelevant) others. Hence, we have to accept incomplete theories, while we are well advised to discard descriptively incorrect theories. Regarding rational choice, it appears that it is rather an incomplete theory, focusing on specific aspects and ignoring others, than an incorrect theory.[10]

[9] To be fair, though, we should take note that microeconomic theory is well aware of its shortcomings. We find more or less lengthy discussions of these issues in most microeconomic textbooks now (e.g. Frank 2008; Pindyck and Rubinfeld 2005).

[10] Descriptively incomplete theories are compatible with the covering law model, as it allows for so-called 'partial explanations'(Hempel 1962, p. 18). Moreover, there are rational choice models which try to remedy the problem of non-ends-oriented actions by combining the virtues of rational choice

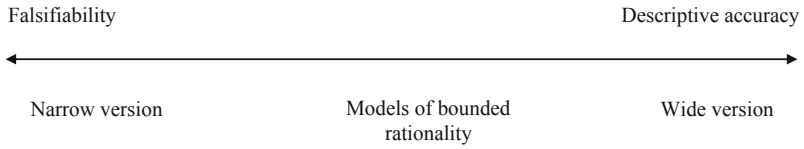

Fig. 4.5 Different versions of rational choice theory

Let us consider the third point of criticism, which asserts that rational choice models are inherently tautological, because we can always ascribe *a posteriori* the most utility to the chosen course of action. We see someone drinking detergent and "explain" this by saying that she or he obviously expected this to be the most beneficial course of action (Frank 1993; Frank and Glass 2000). Such an explanation is certainly nonsensical. In the same vein, we could explain value or norm guided behavior via a utilitarian reconstruction. If we apply such an unrestricted version of rational choice theory, then the theory indeed will become tautological. It cannot be falsified. Any such post hoc explanation is useless. However, the research on the discrepancies between rational choice's *predictions* and human action demonstrates that it can very well be falsified. The classic conception of the homo economicus can, for instance, be seen as falsified. It is an altogether different problem that this model is still widely used. However, we should note that one of the reasons for using the narrow conception of rationality (i.e. the self-interest standard of rationality) is the potential tautological nature of rational choice explanations (Opp 1999). By using a rather narrow conception of what is supposed to be rational, one maximizes the theory's potential falsifiability.

Rational choice theories can be aligned on a continuum (as displayed in Fig. 4.5). At the one end, we find narrow conceptions, such as in economics, which can easily be falsified, but which are also descriptively inaccurate. At the other end, there are

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with more realistic assumptions about everyday and normative actions. An important development in this context is the Model of Frame Selection (MFS) (Esser 2000b, 2002; Kroneberg 2005, 2007, 2008; Esser 2001b). The MFS belongs to the group of dual process models that build on cognitive psychological research (DiMaggio 1997; Fazio 1990). It integrates different modes of action which vary in their degree of (rational) consideration: a reflective, calculating mode, in which an actor shows the forward-looking maximizing behavior assumed by rational choice theory, and an automatic-spontaneous mode, in which she or he will select without any prior reflection a mentally strongly accessible alternative. These modes are chosen according to the framing of a situation. Frames are mental models of a situation which structure the situation's goals as well as "programs of action" that can be automatic and spontaneous, value-rational, or instrumentally rational. The MFS is descriptively more accurate than rational choice models. So why choose a potentially less accurate model? The problem is that available data do not offer ways to operationalize concepts from the MFS (see Chap. 5). This is, of course, at the same time a poor and a coercive reason for the implementation of descriptively less accurate theory. Yet, following the method of decreasing abstraction (Lindenberg 1992) and the principle of maximizing leverage, it is sensible to start with a simpler theory and extend it if it proves to be inadequate in its current formulation. As a consequence, it only becomes necessary to implement more complex models if SEU proves not to be applicable in this work. I argue that, in the context of this work, SEU theory is well suited to explain transnational involvement among immigrants and patterns of immigrant integration.

wide, encompassing notions of rational choice, which may be descriptively more accurate, but at the same time harder to falsify.

Of course, this is far from an exhaustive discussion of the vices and virtues of rational choice models. But since rational choice models can be falsified as well as extended to be descriptively more accurate, they are valuable tools in explaining human agency. Although SEU serves as the nomological core of the explanation proposed here, it should be freed from the burden of being displayed as a general law, although this is still a common approach (see e.g. Esser 1999a, p. 205, 2007, p. 32). Rather, as discussed above, it serves as a well-established hypothesis on human agency. The version of rational choice proposed here is located nearer to the right on the continuum. Neither do I assume that only egoistic preferences are relevant nor that the individuals are fully informed and objectively rational. Certainly, such a version of rational choice with its abstract principle—to choose the course of action from the set of feasible alternatives that appears to be most beneficial—may appear empty and even unfalsifiable (Lovett 2007, p. 248). In order to derive testable hypotheses from any intentional theory of action, it needs to be filled empirically. Only if we reconstruct how actors perceive and define the situation which they are in, the opportunities and restriction they face, and the motives that induce a decision to act, can we apply any theory of intentional action. In doing this, we reconstruct the subjective sense of an action as proposed by Weber (2005/1922).

4.3 Definition of the Situation

Every course of action is preceded by an actor's subjective "definition of the situation" (Thomas 1965), which describes the linkage between objective characteristics of a situation and the subjective interpretation of the situation by an actor. "The definition of the situation is a necessary preliminary to any act of the will, for in given conditions and with a given set of attitudes an indefinite plurality of actions is possible, and one definite action can appear only if these conditions are selected, interpreted, and combined in a determined way and if a certain systematization of these attitudes is reached, so that one of them becomes predominant and subordinates the others" (Thomas and Znaniecki 1919, p. 68). Thus, any situation preceding an action can be systematized into three components (Thomas and Znaniecki 1919, p. 68) that are, first, the situation's objective characteristics, second, the actor's (internal) values and knowledge, and third, the actual definition of the situation, which refers to the actor's more or less clear conception of the situation's objective conditions and her or his values and knowledge.

Among a definition of the situation's objective and external characteristics are the opportunities, institutional rules, and significant symbols (for a detailed discussion see: Esser 2001b, p. 150 ff., 1999a, p. 50 ff.). Opportunities refer to the (materially) restricted set of feasible alternative courses of action. The set all of possible actions is restricted by scarcities in resources (or capitals). However, opportunities and restrictions are not only shaped by material conditions, but also by institutional rules.

These rules encompass any social norms that apply to a situation, defining desired or undesired means and the more or less meaningful goals of action. They can be understood as the "rules of the game" (Esser 1999a, p. 53). The last external component of a situation comprises significant symbols. Actors identify a frame of reference that applies to the situation and pinpoints the appropriate institutional rules and opportunities through perceiving and interpreting these symbols. Among the internal components of the definition are an actor's set of values and knowledge regarding the interpretation of a situation. Esser (1999a, p. 55) describes this complete set of knowledge and values as an actor's (social) identity. In this understanding, an actor's social identity comprises the complete set of organized knowledge and valuations of socially typified situations and of knowledge and valuations of the actor's (envisioned) relation to her or his environment. At this point it should be obvious why reconstructing the definition of the situation is important in the explanation of an action. It is within the definition of the situation that goals and means to reach them are selected G_i, A, and what is more, that actors evaluate the subjective utility they attach to certain outcomes ($U(O)$) and come up with a subjective estimate on how likely it is that the desired outcomes will be achieved (p). Therefore, the first step in explaining a course of action lies in determining the so-called 'logic of the situation' (indicated by first error in Fig. 4.4) via a stylized description of the actor's situation by relying on 'bridge hypotheses'. Bridge hypotheses translate a situation's objective characteristics into the central aspects of the intentional model of action: expectations and evaluations (Esser 1993, p. 120). Only by doing so can we use a decision rule—a theory of intentional action—to derive a concrete hypothesis on how an actor will act in a concrete situation and meaningfully test this proposition against our data. This, of course, means that we have to decide on a theory of action prior to this step.

4.4 Aggregation

Although explaining individual actions is an important part of a sociological explanation, it does not end there. What remains is the third step in explaining a social phenomenon (indicated by arrow 3 in Fig. 4.4), i.e. laying out rules of transformation that illustrate how individual actions constitute the phenomenon we are interested in explaining (Lindenberg 1977; Esser 2000a, p. 13 ff., 20 ff.). These rules of transformation are logical arguments that specify how individual actions generate social phenomena, for instance how individual decisions to divorce drive up (aggregated) divorce rates.

It has been criticized that within methodological individualism this aspect has not received enough attention and might be the least resolved (Schmid 2009; Friedman and Hechter 1988, p. 203; Udehn 2002, pp. 494–495), while it is arguably the most important. In some cases, aggregation is a straightforward endeavor, as in the example of divorce rates. Another example where complex rules of aggregation are

not required is an explanation of differences in labor market participation between immigrants and natives, e.g. higher unemployment rates among immigrants. Individual states, i.e. being unemployed, just add up and thus make for the social phenomenon. In this case, the rules of transformation are simple statistical aggregations. Similarly, the validity of a (jurisdictional) norm—a typical social phenomenon—logically follows if the majority of individual actors acts in accordance to this norm (Greshof and Schimank 2003, p. 4). Conversely, a norm will lose its validity if it is continuously violated.

Other social phenomena, however, require more complex accounts of how individual actions generate the social phenomena in question. This holds already for seemingly simple phenomena such as friendships between two persons (Esser 2000a, p. 14). In general, specifying how individual (inter)actions give rise to macro-level phenomena becomes more complicated if the "phenomena to be explained involve interdependence of individuals' actions, not merely aggregated individual behavior" (Coleman 1990, p. 22). Still, even if we agree that aggregation amounts to simple accumulation only in a very limited set of cases (Friedman and Hechter 1988, p. 203), this does not mean that interdependent processes cannot be modeled via explicit rules of transformation. Taking up the example from above—the validity of a norm—it is apparent that this explanandum is likely to involve interdependent actions. Actors will consider other actors' actions when deciding to follow a norm or not. But this interdependence can be modeled, for instance, through a tipping point model (Schelling 1978, p. 137 ff.), in which all actors are assumed to have a threshold value, which, once it is met, will trigger a certain action. Obviously, this is more complicated than a simple accumulation, as it may involve recursive processes. Fortunately, for the work and the research questions at hand, this task appears manageable. On the one hand, patterns of transnational involvement, as defined above, simply add up. On the other hand, patterns of individual social integration primarily refer to relative characteristics of groups, such as the aforementioned differences in occupational status.

4.5 Social Production Function

So far, the proposed theoretical model argues that once the preceding conditions are known, we can infer what course of action will be chosen. As argued above, this depends on subjectively expected benefits, probabilities, and costs. In view of this subjectivity, the question is why can we observe systematic patterns (and differences in patterns) between different social or ethnic groups? Thus, there is need for an additional theoretical building block that can explain how these patterns come into being in terms of individuals' motives, beliefs, and opportunities. In other words, it is necessary to specify how the 'rules of the game,' the institutional rules and the cultural frames, link up with the theory of action and why different actors have different goals or preferences.

The social production function (SPF) theory is one attempt to provide an endogenous account of preferences (Lindenberg 1993, 1996b; Ormel et al. 1999; Lindenberg 1986, 1989b). The very basic assumption behind this theory is that all individuals produce their own well-being by trying to optimize, within the constraints they are facing, achievements of two universal goals: physical and social well-being (van Bruggen 2001, p. 71; Ormel et al. 1999). Different social groups, i.e. immigrants and natives, may systematically differ in the ways they pursue these goals. This stems from differences in the endowment with resources, differences in opportunities and restrictions, and differences in cultural standards.[11] The SPF borrows its basic idea from economic theory, which states that certain input factors can be used to produce certain outputs. The production function consequently describes the way in which input factors and output are related, e.g. the quantity necessary to produce a certain amount of the desired output. Formally, the SPF can be stated as (Lindenberg 1996b, p. 175)

$$U = f(PW, SW)$$

where overall well-being is denoted as U and the input factors physical well-being and social well-being are denoted as PW and SW, respectively. There are five important assumptions regarding the characteristics of the SPF (Esser 1999a, p. 87 ff.; Lindenberg and Frey 1993; Lindenberg 1996b, 1993; Nieboer and Lindenberg 2002). First, the SPF is assumed to increase monotonously, i.e. the higher the input, the higher the output. Secondly, however, it is assumed that the marginal returns are declining (see Fig. 4.6). Thirdly, the SPF allows for evaluating the relative efficiency of an input factor. Fourth, it assumes a hierarchical structure of goals, with universal goals, like physical and social well-being, at the top and more concrete goals at the bottom, which serve as means in producing higher level goals. Fifth, SPF theory assumes that means can be substituted, with a declining degree of substitutability as one moves up in the hierarchy.

In the following, the aspects of the SPF will be discussed in detail. Starting with the hierarchical design (Fig. 4.7), the SPF specifies that that the universal goals on top and the instrumental goals at lower levels are linked by production functions specifying the relationship between these goals (van Bruggen 2001, p. 72). The higher one advances in the model, the more abstract the goals become—eventually ending with

[11] A critical discussion of the SPF theory can be found in Rössel (2005, p. 159 ff.), who argues that SPF theory places too much weight on the social determination of lower level goals. According to Rössel (2005, p. 159 ff.), SPF theory has an over-socialized concept of actors. Indeed, actors are certainly imaginative and resourceful in pursuing their goals and can be equally imaginative and resourceful in interpreting situations. Nevertheless, there is stability in how actors try to achieve goals, with change being mostly incremental (of course, there are also counter-examples such as revolutions). Placing the focus on the social aspect of the social production function seems therefore appropriate. What is more, it is a misconception that the social production function is deterministic. If it would be deterministic, it could not explain (social) change without reference to exogenous shocks. But if we consider the link to Merton's (1996 [1938]) work on social structure and anomy, it is obvious that it is possible to explain social change (e.g. through innovation or rebellion) within the bounds of the SPF theory.

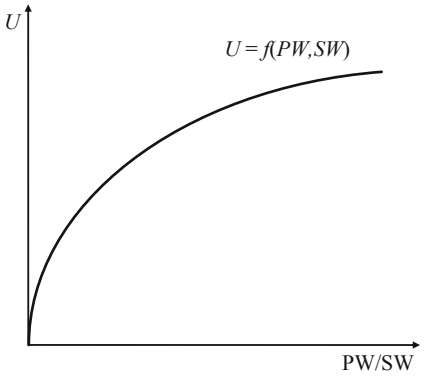

Fig. 4.6 The relation between physical and social well-being to overall well-being in the SPF. *U* utility, *PW* physical well-being, *SW* social well-being. (Source: Modified from Esser 1999a, p. 97)

overall well-being. Overall well-being is achieved through ensuring physical and social well-being, the universal goals, which are located on the second level. While physical and social well-being are assumed to constitute universal input factors when it comes to producing overall well-being, they also represent basic human needs that have to be produced themselves. A person can only obtain social and physical well-being if she or he possesses characteristics, resources, skills, activities, and the like that other people value and appreciate or which are necessary for meeting her or his biological needs (Esser 1999a, p. 97). Consequently, we cannot directly produce physical and social well-being. Instead, we have to rely on "first order instrumental goals" to ensure their production. Lindenberg and Frey (1993, p. 196) identify five main first order instrumental goals. With respect to social well-being,

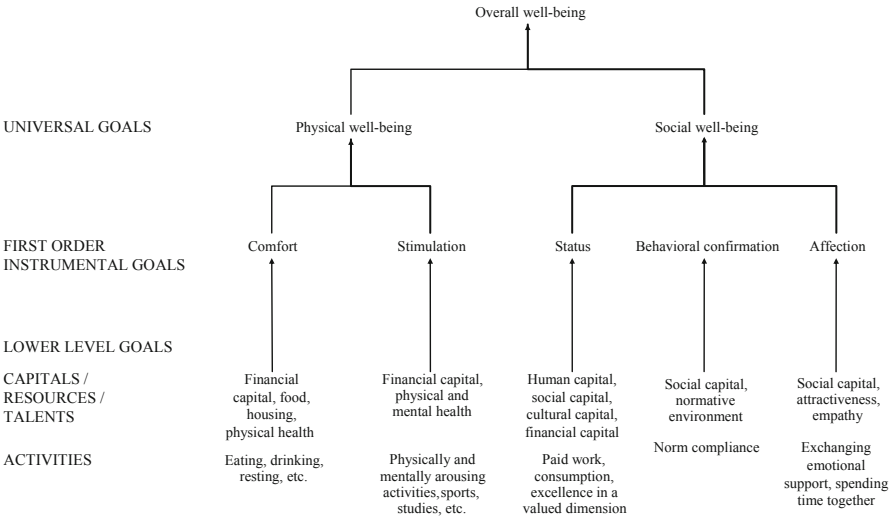

Fig. 4.7 The hierarchical structure of the SPF. (Source: Modified from Ormel et al. 1999, p. 67)

there is social status, referring to a relative ranking, behavioral confirmation, and affection, which includes love, friendship, and emotional support. For physical well-being, Lindenberg and Frey (1993, p. 196) name comfort and stimulation.[12] These are located at the third level (see Fig. 4.7). If we denote those first order instrumental goals with G, the relation—the second production function—can be specified as (Esser 1999a, p. 99)

$$PW = g_1(G)$$

$$SW = g_2(G)$$

As the first-order instrumental goals are necessary to achieve physical and social well-being, the first-order instrumental goals have to be produced themselves, too.[13] There are some concrete suggestions what these lower order means of production actually are (e.g. van Bruggen (2001); Ormel et al. (1999); and see Fig. 4.7), but at this point it suffices to say that in general they encompass, in any combination, capitals, activities and talents, and time. Denoting those lower level goals with X and time with t, this leads to the third production function

$$G = h(X, t)$$

In this context, it is useful to distinguish between different forms of capital that can be used to attain higher level goals. Taking up the distinction between four forms of capital (Bourdieu 1983, 2000), there is, first, financial capital, which refers to tangible resources, be they monetary or physical. Second, there is human capital, denoting the skills and knowledge that enhance productivity and one's position in the labor market. In contrast to financial capital, which is highly transferable, human capital is tied to the actor. A common example for human capital is a person's education. Human capital is, however, not limited to those skills acquired through (formal) schooling. In the context of migration, especially language proficiency (Esser 2006; Tubergen and Kalmijn 2005) and cultural knowledge are of crucial importance. This brings us to cultural capital, the third form of capital (Bourdieu 1987, 1989). Cultural capital overlaps with human capital, as both refer to knowledge and skills. It describes an actor's endowment with cultural and linguistic competencies. Typically, the process of cultural capital acquisition is lengthy, requiring early internalization, which makes cultural capital hard to attain later in life. Social capital is the fourth type of capital. It describes an actor's capacity to mobilize (scarce) resources by virtue of the actors' membership in social networks or broader social structures (Portes 1998).[14] In the

[12] Sometimes these first order instrumental goals are also referred to as 'primary intermediate goods' (e.g. Esser (1999a, p. 98)).

[13] This set of resources and talents is also referred to as 'indirect intermediate goods' (Esser 1999a, p. 105).

[14] There are differing and at times at least partially opposing conceptualizations and definitions of cultural and social capital. Bourdieu (1985, 1987), for instance, sees human capital as part of cultural capital. For a different approach to social capital, see, for example, Putnam (1995).

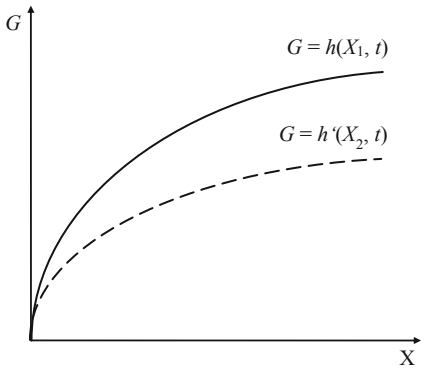

Fig. 4.8 Two production functions for a first order instrumental goal. (Source: Modified from Esser 1999a, p. 100)

context of the SPF, it is important to understand that all these capitals can be used to produce first order instrumental goals (see Fig. 4.7), which then produce physical and social well-being.

The SPF's second important aspect is the incorporation of substitution mechanisms (Ormel et al. 1999; Ormel et al. 1997; Lindenberg 1996b). SPF theory assumes that one production factor can be exchanged for another. However, the ability to substitute decreases as one moves up the hierarchy of goals. Physical and social well-being can only be substituted to some extent in the production of overall well-being. But in the production of social and physical well-being it is easier to substitute one production factor for another. Status, for instance, can be substituted by behavioral confirmation or affection. Substitutability increases even more, if one looks at the level of capitals and activities: the production of status can, for instance, be achieved by all forms of capital.

Related to the mechanism of substitution is the possibility to evaluate the efficiency of the production factors. The efficiency of a production factor follows from its cost-benefit ratio, i.e. the relation between the amount of input and the amount of output. Production factors can vary considerably in their efficiency, as displayed in Fig. 4.8. The capital (or activity) X_1 is more efficient than X_2. Although the relation between the two production functions in Fig. 4.8. is rather simple, it can take on more complex forms. Importantly, while it is reasonable to assume that the production function for overall well-being monotonously increases with declining marginal returns, this is not necessarily the case for the production functions of physical and social well-being and for the first order instrumental goals. For instance, excessive food intake can bring about a negative effect on physical well-being, because it can create *dis*comfort.

The most efficient production factors are multifunctional (Ormel et al. 1999), i.e. they can simultaneously produce two or more first order instrumental goals. Financial capital is a case in point. It is necessary to ensure comfort, by allowing the purchase of food, it can be used to attain stimulation, and it automatically, by mere possession, creates status—at least in capitalist societies.

The observation that there are systematic differences in the way (groups of) individuals achieve their well-being, in particular regarding the strategies to attain lower level goals, points to what is social in the SPF. These differences are not idiosyncratic,

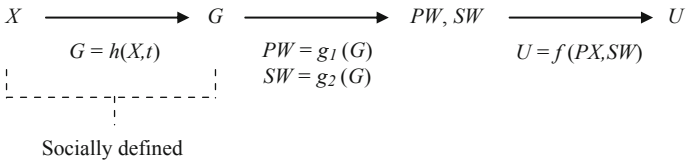

Fig. 4.9 The structure of the SPF. (Source: Modified from Esser 1999a, p. 108)

but patterned, contingent upon an individual's position in a certain society, and thus social facts in Durkheim's sense (Lindenberg and Frey 1993, p. 196), as societies and subgroups 'define' what a production function looks like. Differences in production functions correspond to different productivity levels of lower level goals or entirely different sets of lower level goals in different societies and subgroups. The set of lower level goals and the productivity of those lower level goals are historically, culturally, and socially specific; they are materially, technically, institutionally, and culturally defined (Esser 1999a, p. 110). What is more, the set of socially defined production functions can be understood as culture: "a culture can be interpreted as having characteristic social production functions for various social positions in various social situations" (Lindenberg 1989a, p. 190). This understanding on how culture impacts action is highly compatible with Merton's (1996/1938) notion of cultural goals and institutional norms (Esser 1999a, p. 111). Cultural goals define what is socially desirable in a society and institutional norms define legitimate ways to achieve those goals. In Merton's words, cultural goals are "[. . .] a frame of aspirational reference. They are the things 'worth striving for' [. . .]" and institutional norms "define[s], regulate[s] and control[s] the acceptable modes of reaching out for these goals" (Merton 1996/1938, pp. 132–133). In terms of the SPF, cultural goals can be understood as defining the lower level goals and the institutionalized norms the way in which these goals can be achieved. The structure of the SPF is summarized in Fig. 4.9.

The production functions on the left side of Fig. 4.9 are those that are socially defined. The further one moves to the right, the more idiosyncratic the production functions become. However, the fact that the means which allow for achieving the first order instrumental goals are socially defined does not imply that there is little variance among them. The opposite is true. The ways in which people try to produce well-being varies within and, in particular, between different segments of a society. Still, some production functions and some capitals take a very prominent position. Among those are, especially in Western societies, human capital and financial capital, since they are multifunctional. This is obvious for financial capital, as discussed above. But it also holds true for human capital, as this form of capital plays a crucial role in determining one's life chances: human capital is one of the most important determinants of one's position in the labor market, which, in turn, largely determines one's position in society, one's financial capital, one's status, and so forth. It therefore does not come as a surprise that research on educational inequality and educational achievement is tied to the investigation of immigrant integration. Moreover, the assumption that forms of capital play a crucial role in the integration process links up with other models (see e.g. Alba and Nee 2003; Nee and Sanders 2001).

4.6 The Social Production Function, Immigrant Integration, and Transnational Involvement

Consequently, the SPF framework can be used to investigate differences in the ways groups go about in ensuring their social and physical well-being. From this it extends naturally to the investigation of immigrant integration. We can understand immigrant integration as convergences or divergences in the 'modes of production' of immigrants and the autochthonous population. The receiving society confronts the immigrants with social production functions that oftentimes differ from those in their country of origin (Kalter and Granato 2002, p. 202). In particular, there can be great differences in the efficiency of lower level goals (i.e. capitals), depending on the cultural distance between sending and receiving country, since cultural goals and institutionalized means are likely to differ between immigrants and non-immigrant groups. For example, human capital acquired in the country of origin may lose some or all of its value in the receiving society (Borjas 1989; Chriswick 1978; Friedberg 2000). Certainly, this is not only limited to the human capital, as many forms of capital are not transferable between different societies—either because it is geographically bound, as, for instance, social capital located in the sending country, or because it is devalued, as sending country cultural capital.

Focusing on these lower level goals, the process of immigrant integration can be reconstructed as investments in capitals. In general, an immigrant, as any other person, faces two possibilities: first, to maintain the status quo or, second, to invest time, effort, and resources to change her or his situation. This corresponds to the example given above regarding transnational involvement, where the immigrant also faces two options. Stating this in a more general form gives us (Esser 2006, p. 40)

$$EU(SQ) = U_{SQ}$$

$$EU(IN) = p_{IN}U_{IN} + (1 - p_{IN})U_{SQ} - C_{IN} \tag{4.7}$$

where IN refers to investment and SQ to status quo and p and U denote the subjective expected probabilities and utilities just as above. As demonstrated earlier, some simple algebra leads to the 'investment condition'

$$U_{IN} - U_{SQ} > \frac{C_{IN}}{p_{IN}} \tag{4.8}$$

The left side of the inequality describes the 'investment motive', i.e. the difference in utility associated with the two possible outcomes. The right side of the inequality captures the 'investment threshold', which captures the opportunities for the investment (Esser 2006, p. 41).

4.6.1 Three Alternatives

The investment condition emphasizes the importance of the interplay between individual motives and beliefs and structural conditions. Given a certain probability, the higher the costs, the higher the motive to invest ($U_{IN} - U_{SQ}$) has to be in order for the inequality to hold. If the structural conditions do not permit realizing the desired outcome, the motive to invest becomes irrelevant. This is the case if the probability to realize the desired outcome is too low or if the costs are too high. The probability to realize an outcome is particularly important: as the probability decreases, the term of the right hand side of the inequality increases. If the probability approaches zero, the right hand side of the inequality will approach infinity and, consequently, the chance for the inequality to hold will shrink drastically. The motive to invest is, however, highly relevant if the structural conditions permit the investment. The decision to invest then depends on the actor's evaluation of the status quo and the outcome of the investment.

Regarding the integration of immigrants, the model of intergenerational integration posits that immigrants typically have two different investment strategies to choose from (Esser 2006, p. 43 ff.): first, investing into receiving country specific capitals and, second, investing into ethnic capitals. The former corresponds to an assimilative course and the latter to an ethnic course, as, for instance, described in the theory of segmented assimilation (Portes and Zhou 1993; Zhou 1997).[15] Formally this is displayed as

$$EU\,(SQ) = U_{SQ}$$

$$EU\,(RC) = p_{RC}U_{RC} + (1 - p_{RC})U_{SQ} - C_{RC} \tag{4.9}$$

$$EU\,(EC) = p_{EC}U_{EC} + (1 - p_{EC})U_{SQ} - C_{EC} \tag{4.10}$$

with RC denoting receiving country capitals and EC ethnic capitals. Transnational activities lend themselves to being incorporated into the model by adding one additional possible investment strategy, as in the example discussed above

$$EU\,(TN) = p_{TN}U_{TN} + (1 - p_{TN})U_{SQ} - C_{TN} \tag{4.11}$$

One might object that the difference between ethnic investments and transnational investments is not clear cut. Indeed, this can be the case. At the moment, however, we assume an analytical distinction between these options; this topic will be discussed in detail later. The possible beneficial outcomes of the investment strategies can be compared to the status quo and to each other. The model predicts that an investment will be made only if the strategy is perceived as being more beneficial compared to

[15] The theory of intergenerational integration also aims at explaining ethnic conflicts. Thus, it incorporates a third option, investing into a change of the institutional order and the power structure: $EU\,(PC) = p_{PC}U_{PC} + (1 - p_{PC})U_{SQ} - C_{PC}$ with PC for political conflict. Since this work focuses on the integration of immigrants and not on ethnic conflicts, I will disregard the last option in the remainder of the discussion.

the status quo and to the other investment strategies. For instance, an immigrant will invest into receiving country capitals according to the model if

$$U_{RC} - U_{SQ} > \frac{C_{RC}}{p_{RC}} \tag{4.12}$$

and if $EU\,(RC) > EU\,(EC)$ as well as $EU\,(RC) > EU\,(TN)$. $EU\,(RC) > EU\,(EC)$ equals

$$\begin{aligned} p_{RC}U_{RC} + (1 - p_{RC})U_{SQ} - C_{RC} &> p_{EC}U_{EC} + (1 - p_{EC})U_{SQ} - C_{EC} \\ p_{RC}U_{RC} - p_{RC}U_{SQ} - C_{RC} &> p_{EC}U_{EC} - p_{EC}U_{SQ} - C_{EC} \end{aligned} \tag{4.13}$$

Solving the investment condition (4.12) for U_{SQ} and plugging this into (4.13)—under the assumption of indifference, i.e. the actor is indifferent to investing or maintaining the status quo $U_{SQ} = U_{RC} - (C_{RC}/p_{RC})$—this leads to

$$p_{RC}U_{RC} - p_{RC}\left(U_{RC} - \frac{C_{RC}}{p_{RC}}\right) - C_{RC} > p_{EC}U_{EC} - p_{EC}\left(U_{RC} - \frac{C_{RC}}{p_{RC}}\right) - C_{EC}$$

$$p_{RC}U_{RC} - p_{RC}U_{RC} + p_{RC}\frac{C_{RC}}{p_{RC}} - C_{RC} > p_{EC}U_{EC} - p_{EC}U_{RC} + p_{EC}\frac{C_{RC}}{p_{RC}} - C_{EC}$$

$$p_{EC}U_{RC} - p_{EC}\frac{C_{RC}}{p_{RC}} > p_{EC}U_{EC} - C_{EC}$$

$$U_{RC} - \frac{C_{RC}}{p_{RC}} > U_{EC} - \frac{C_{EC}}{p_{EC}} \tag{4.14}$$

This condition is straightforward: An immigrant will prefer investing into receiving country capitals rather than into ethnic capitals if the difference in expected gains minus the ratio of costs and probability for this investment, i.e. the 'net gains', is higher than the expected net gains from the investment into ethnic capitals. Under the assumption that these investments are mutually exclusive—we will return to this aspect later—the condition can be interpreted from the perspective of opportunity costs: only if the opportunity costs (the expected net gains of the forgone alternative) are lower than the alternative in consideration will an actor actually choose this course of action. However, this condition is not sufficient. At the same time, $EU(RC) > EU(TN)$ has to be met, which likewise states that the net gains of an RC-investment must outweigh net gains from transnational involvement

$$U_{RC} - \frac{C_{RC}}{p_{RC}} > U_{TN} - \frac{C_{TN}}{p_{TN}} \tag{4.15}$$

Alternatively, these conditions can be represented as

$$U_{RC} - U_{TN} > \frac{C_{RC}}{p_{RC}} - \frac{C_{TN}}{p_{TN}} \tag{4.16}$$

Table 4.1 The relation between the different investment strategies

Investment strategy	Condition 1 (Investment vs. status quo)	Condition 2 (Investment a vs. investment b)	Condition 3 (Investment a vs. investment c)
Receiving country capitals	$U_{RC} - U_{SQ} > \frac{C_{RC}}{p_{RC}}$	$U_{RC} - \frac{C_{RC}}{p_{RC}} > U_{EC} - \frac{C_{EC}}{p_{EC}}$	$U_{RC} - \frac{C_{RC}}{p_{RC}} > U_{TN} - \frac{C_{TN}}{p_{TN}}$
Ethnic capitals	$U_{EC} - U_{SQ} > \frac{C_{EC}}{p_{EC}}$	$U_{EC} - \frac{C_{EC}}{p_{EC}} > U_{RC} - \frac{C_{RC}}{p_{RC}}$	$U_{EC} - \frac{C_{EC}}{p_{EC}} > U_{TN} - \frac{C_{TN}}{p_{TN}}$
Transnational involvement	$U_{TN} - U_{SQ} > \frac{C_{TN}}{p_{TN}}$	$U_{TN} - \frac{C_{TN}}{p_{TN}} > U_{RC} - \frac{C_{RC}}{p_{RC}}$	$U_{TN} - \frac{C_{TN}}{p_{TN}} > U_{EC} - \frac{C_{EC}}{p_{EC}}$

U utility, *C* costs, *p* the realization probabilities, *SQ* status quo, *RC* receiving country capital, *EC* ethnic capital, *TN* transnational activities

and

$$U_{RC} - U_{EC} > \frac{C_{RC}}{p_{RC}} - \frac{C_{EC}}{p_{EC}} \tag{4.17}$$

In this form, the inequality's left side again captures the investment motive (or incentive or desire) while the right represent the opportunities and costs. We can thus systematize the relationship between the three possible investment strategies and the status quo, as summarized in Table 4.1. Only if the three conditions are met simultaneously will an immigrant invest into the respective capital.

These inequalities are abstract; they are the rational choice core of the explanation. As discussed above, they have to be filled empirically in order to produce concrete hypotheses. But before doing so, we have to consider how transnationalism and integration link up in the broader framework drawn out. One way, and this has been done above, is to incorporate transnational involvement as an additional investment strategy. This is what the remainder of this work concentrates on. Although transnational involvement is presented as a third investment possibility, it should not be understood as a general 'mode of production' akin to an assimilative or ethnic investment strategy (Kivisto and Faist 2010, p. 148). This would imply a transnational mode of living, which previous research, in particular on transnational entrepreneurship (Portes et al. 2002), has shown to be rather rare.[16]

The next step consists of empirically filling the abstract conditions in Table 4.1 to derive testable hypotheses. As outlined above, this is done via specifying bridge

[16] However, transnationalism can be incorporated into this theoretical framework in a different manner. As laid out in Chap. 3, this work builds on a straightforward, action-oriented conception of transnationalism—border crossing activities. Still, the literature offers other, broader conceptions, which focus on increased interconnectedness between states and the life of individuals across borders (e.g. Mau 2010; Mau et al. 2008). Understood in such a way, transnationalism shares aspects of globalization. Indeed, it is argued that a potential increase in transnational activities comes as a byproduct of globalization. As a consequence of globalization, social production functions may have been changed in the sense that the definition of their instrumental goals is less determined by national societies but instead globally or transnationally standardized (Kalter 2005), which also links up to the discussion of methodological nationalism (see Chap. 3). In this sense, transnationalism could refer to a declining importance of country-specific capitals and the increasing importance of generalized capitals. This phenomenon is elsewhere described as the structural isomorphism of contemporary nation-states (Meyer et al. 1997). The global expansion and standardization of (higher)

Table 4.2 Levels and examples of factors influencing investment decisions. (Source: Modified from Esser 2006, p. 38)

Level	Examples
Individual	Human capital (receiving or sending country; e.g. formal education), cultural capital (receiving or sending country; e.g. language), social capital (receiving or sending country or ethnic; e.g. composition of networks), financial capital (e.g. income), other factors (e.g. years of residence, age at migration, first or second generation, intention to stay, residence status, citizenship, ties to the sending country, identification, labor force status, marital status)
Contextual	
Sending context	Demographic, economic, and political situation in sending country, cultural distance between sending and receiving country
Receiving context	Integration policy, labor market, social distance between autochthonous and immigrant population, segregation
Ethnic group	Size, geographic dispersion, replenishment, institutionally complete enclaves

hypotheses that help to understand how situations structure an actor's motives, opportunities, and restrictions for certain courses of actions. When trying to explain how immigrants determine whether to invest into receiving country or ethnic capitals or become transnationally active, an array of factors has already been identified by research so far (see Chaps. 2 and 3). It depends on their inclusion or exclusion from central subsystems of the receiving society, in particular their labor market position, on individual characteristics, such as their endowment with capitals, and on the existence of specific ethnic opportunities, for instance ethnic economies, the cultural distance between sending and receiving country, and the social distance between the autochthonous group and the immigrants. This enumeration can certainly be expanded. But the task at hand does not require specifying *every* aspect influencing the process of immigrant integration. Instead, it suffices to concentrate on those which are theoretically prominent and empirically relevant. The factors can be systematized according to the level they are situated on—the individual and the contextual level (Alba and Nee 2003, p. 38). At the individual level, we can further differentiate between the different capitals, as the acquisition is not only important regarding the outcome of the integration process, but they function as important inputs for this process, too. The contextual level can further be differentiated into sending context, receiving context, and ethnic group (Table 4.2).

While some factors suggest unambiguous, straightforward effects on the process of integration, its theoretical reconstruction is complicated by its dynamic and multidimensional nature. For instance, if we intend to explain transnational involvement, we have to consider that this is likely to influence a second phenomenon

education could serve as an example. Human capital acquisition is at the same time becoming more standardized (e.g. the Bologna process) and internationally more important in determining an individual's life chances. Although this line of argumentation is interesting, it is not what this work wants to investigate. Moreover, with this work's focus and the available data, it is not possible to test the empirical validity of this hypothesis.

to be explained, e.g. investments into receiving country capitals. From a standard assimilationist perspective, we could, for example, put forth the hypothesis that the higher an immigrant's transnational involvement, the lower will be her or his investment into receiving country capitals, because (a) transnational involvement enforces a sending country mode of production and (b) any investment uses up scarce time and resources—what is invested into one alternative cannot be invested into another. Although there are certainly path-dependencies, such an undifferentiated approach might be too simplistic, as it rests on the assumption that receiving country and sending country modes of production are different. This can be the case, but it does not have to be. Although time and resources are scarce, investments are not necessarily mutually exclusive.

However, there are some investment strategies that have a higher affinity toward another than others. In particular, transnational involvement and investment into ethnic capitals have a higher affinity than transnational involvement and investment into receiving country capitals, assuming that the former share some input factors. Some capitals might be multifunctional in the sense that they, once acquired, can be used to attain different goals across different modes of production. A prime example is the second generation's proficiency in the language of the country of origin. If this is given, it reduces the costs and increases opportunities for both transnational involvement and further ethnic capital investment. Moreover, even if we do without a strict causal order between the different dimensions of integration (cultural, structural, social, emotional), they are, nevertheless, interrelated. This has to be considered in a theoretical reconstruction, too. While any combination of inclusion and exclusion on the four dimensions is theoretically possible (Esser 2006, p. 27), some are theoretically and empirically more likely than others, because they are correlated. Within one mode of production this correlation is positive. The within correlation is positive, because a high level of integration on one dimension makes a higher level on another dimension more likely. For instance, high social integration into the receiving country makes a higher level of cultural integration into the receiving country more likely, as social integration increases the realization probability of investing into cultural integration (e.g. through contacts in interethnic friendships), increases the motive to do so, and reduces the costs. Between the modes of production the correlation can be positive or negative, depending again on the overlap of these modes.

4.6.2 Determinants of Transnational Involvement

In specifying the determinants of transnational involvement, we have to assess the empirical circumstances for condition one and two being met simultaneously (see Table 4.1). That is immigrants will be transnationally active if $U_{TN} - U_{RC} > (C_{TN}/p_{TN}) - (C_{RC}/p_{RC})$ and $U_{TN} - U_{EC} > (C_{TN}/p_{TN}) - (C_{EC}/p_{EC})$ are simultaneously met.[17]

[17] Since $U_{TN} - U_{SQ} > C_{TN}/p_{TN}$ was used to solve the inequalities, both conditions $U_{TN} - U_{RC} > (C_{TN}/p_{TN}) - (C_{RC}/p_{RC})$ and $U_{TN} - U_{EC} > (C_{TN}/p_{TN}) - (C_{EC}/p_{EC})$ presuppose that $U_{TN} - U_{SQ} > C_{TN}/p_{TN}$ is met and we can concentrate the discussion on those two inequalities.

Individual Factors The first aspect to consider concerns a feature of the migration process itself, namely age at migration. Age at migration appears as a crucial factor shaping an immigrant's motivation and opportunities for transnational involvement, since the settlement process is likely to be moderated by the life cycle (Waldinger 2008, p. 18). The more time an immigrant has spent in the country of origin before migrating, the higher will be her or his attachment to this country, the more country of origin capital she or he will have accumulated there, and the more familiar she or he will be to this country's mode of production. The older an immigrant is when entering the receiving society, the higher will be her or his stock of sending country (SC) capitals (OC, which are assumed to equal ethnic capitals) and thus the higher the incentive to prevent their devaluation. Taken together, this will increase the expected gains of border-crossing activities (U_{TN}) and provide more opportunities for such activities through increased realization probabilities (p_{TN}) and reduced costs (C_{TN}). A further indirect effect of age at migration results from its influence on RC-investments. The younger a person is, the easier it is to learn and adapt to new modes of production prominent in the receiving country; for some aspects (e.g. language) there even seems to be a critical period (Esser 2006, p. 87). Additionally, investments into new capitals are less attractive the shorter the expected time-span in which benefits can be realized. With increasing age at migration, the remaining life in the receiving country decreases. Thus, the older an immigrant is when entering the receiving country, the higher is the probability that condition two is—*ceteris paribus*—met.

The assumed effects of age at migration in condition three—the comparison between transnational involvement and EC-investments—are put into parentheses (see Table 4.3) because their influence goes into the same direction: the older a person is at migration, the higher will be the expected gains from transnational involvement (U_{TN}) as well as from EC-investments (U_{EC}). Likewise, age increases realization probabilities (p_{TN} and p_{EC}) and reduces costs for both alternatives (C_{TN} and C_{EC}). If we write the third condition as $U_{TN} - (C_{TN}/p_{TN}) > U_{EC} - (C_{EC}/p_{EC})$ it is apparent that both sides of the inequality are proportionally influenced by age at migration.

Summing up, the first hypothesis is

Hypothesis TN1: The higher an immigrant's age at migration, the greater will be her or his transnational involvement.

Conversely, if an immigrant is born in the receiving country, the more will her or his (secondary) socialization take place with reference to the standards of the receiving country, in particular if she or he attends school in the receiving country. This entails higher realization probabilities (p_{RC}) of RC-investments, lower costs of such investments (C_{RC}), and higher gains (U_{RC}). At the same time, the second generation has considerably less first-hand knowledge about the country of origin. As such, the second generation has much fewer opportunities for border-crossing involvement, as it lacks necessary social capital in the country of origin, is less used to the mode of production in the country of origin, and is commonly less attached to it. Later generations are in general less endowed with OC-capitals than the first. As a result, the costs for transnational involvement are higher (C_{TN}) and the realization probability (p_{TN}) is lower. The same holds for EC-investments.

Hypothesis TN2: The second generation is less transnationally active than the first.

Although years of residence by themselves do not constitute a causal factor influencing immigrant integration (Esser 1981), they are crucially important in the process of immigrant integration for two reasons. First, years of residence are the most important proxy variable capturing opportunities for integration. Second, integration is a process over time: learning the new language, getting used to new customs and norms, building up new relations all happen over time and the years of residence capture the length of exposure. In terms of the inequalities in Table 4.3, this refers to increased realization probabilities of (p_{RC}), which makes it less likely that condition two is met.

Hypothesis TN3: The higher the years of residence in the receiving country, the less transnationally active an immigrant will be.

We could moreover assume that the longer an immigrant lives in the receiving society, the higher will be his or her orientation toward this country and thus the lower the motivation to be transnationally active. This might be the case, but, as the above discussion on individual social integration suggests, it is not necessarily so. In case of marginalization, the orientation toward the receiving country might be low, regardless of the length of stay. Obviously, this depends on other aspects that better capture the immigrants' orientation toward the country of origin and the receiving country. Among those, the intention to stay permanently or to eventually return to the country of origin takes a prominent position. If the immigrant intends to settle permanently in the receiving country, this is likely to increase an immigrant's assessment of the beneficial consequences of RC-investments (U_{RC}). Many of these investments require a considerable amount of resources and time, but their related rewards are realized only in the long run. If the stay is supposed to be temporary, the motivation to invest into RC-capitals is consequently lower. And, maybe even more important, if an immigrant plans to return to the country of origin, this involves a strong incentive to maintain sending country capitals—in particular social capital located in the sending country. Conversely, a permanent stay reduces potential gains (U_{TN}) and thus the incentive to be transnationally active. Overall, therefore, the probability that condition two is met will be lower.

Hypothesis TN4: If an immigrant intends to stay permanently in the receiving country, transnational involvement will be lower.

Apart from the intention to stay in the receiving country, direct feelings of belonging and identification will influence an immigrant's motivation to be transnationally active. Acquiring the receiving country's citizenship can be an indicator of identification with this country (Diehl and Blohm 2008). If citizenship acquisition is a manifestation of an immigrant's identification with the receiving country, it can be viewed as an immigrant's crossing of boundaries between ethnic groups (or an attempt to do so). From such a perspective, citizenship signifies belonging, and it would decrease gains from transnational involvement (U_{TN}). However, acquiring the receiving country's citizenship can also have instrumental value. On the one hand, it secures legal status, with its value being determined by the differential (legal) treatment and opportunities for citizens and non-citizens. In some areas, acquiring

Table 4.3 Theoretical constructs and bridge hypotheses

Factor				Condition 2 (TN vs. RC)						Condition 3 (TN vs. EC)						
				$U_{TN}-U_{RC} > (C_{TN}/p_{TN})$				$-(C_{RC}/p_{RC})$ &		$U_{TN}-U_{EC} > (C_{TN}/p_{TN})$				$-(C_{EC}/p_{EC})$		Overall
		Age at migration	TN1	+		−	+	+	−	(+)	(+)	(−)	(+)	(−)	(+)	+
		2nd generation	TN2		+	+	−	−	+			(+)	(−)	(+)	(−)	−
		Years of residence	TN3					−	+							−
Individual	Emotional	Intention to stay	TN4	−	+				+	(−)	(−)					−
		Citizenship (RC)	TN5		?	?	?	?	?			?	?	?	?	?
	Cultural	Language proficiency (OC)	TN6			−	+					(−)	(+)	(−)	(+)	+
		Language proficiency (RC)	TN7					−	+							
	Structural	Human capital	TN8		+	?	?	−	+			−	?			−
		Income	TN9	+	+	−	+	−	+	+	+	−	+	−	+	?
		Labor force status (empl.)	TN10		+				+							−
	Social	Social capital (EC)	TN11	+		−	+					(−)	(+)	(−)	(+)	+
		Social capital (OC)	TN12													+
Contextual	Receiving context	Social distance	TN13		−				−							+
	Ethnic Group	Geo. Concentration	TN14			−	+				+	−	+	−	+	+

U the utility, *C* costs, *p* the realization probabilities of the respective alternatives (*TN, RC, EC*), *OC* origin, *RC* receiving country, *TN* the number of the hypothesis

citizenship is even a prerequisite for full participation, e.g. in politics and sometimes also in the labor market. If this is the case, then having the citizenship of the receiving country increases potential gains (U_{RC}) and realization probabilities (p_{RC}) and reduces costs (C_{RC}). On the other hand, the citizenship of the receiving country can also ease traveling across borders if the citizens of the receiving country enjoy better visa conditions. The legal rights an immigrant enjoys through acquiring citizenship can also open up new possibilities for transnational endeavors, such as getting residence permits for family members. As a result, citizenship acquisition can also increase realization probabilities (p_{TN}) and decrease the costs (C_{TN}) of border-crossing activities. Thus, the effect of acquiring the German citizenship cannot be established unambiguously, since different processes driven by different motivations are likely to mutually cause immigrants to become citizens of Germany.

Hypothesis TN5: Acquiring German citizenship will neither increase nor decrease transnational involvement.

On the cultural dimension of integration, language proficiency is arguably one of the most important aspects affecting immigrant integration (Esser 2006), because it can directly affect one's inclusion or exclusion from social systems or (ethnic) groups. In order to be included into an ethnic group, one has to have command of the language that is spoken within this group and, likewise, inclusion into subsystems of the receiving society, e.g. the educational system or the labor market, generally requires proficiency in the language of the receiving country. Similarly, being proficient in the language of the country of origin is a prerequisite for transnational endeavors. It increases realization probabilities (p_{TN}) and decreases the costs (C_{TN}). Therefore, condition two is more likely to be met, because the size of the inequality's right side decreases. Receiving country language proficiency is, in contrast, an essential prerequisite for (further) RC- investments, in particular for human capital and labor market participation. It increases realization probabilities (p_{RC}) and decreases the costs (C_{RC}), which makes it less likely that condition two is met.

Hypothesis TN6: If an immigrant is proficient in the language of the country of origin, her or his transnational involvement will be higher.

Hypothesis TN7: If an immigrant is proficient in the language of the receiving country, her or his transnational involvement will be lower.

Human capital on the whole is associated with higher expected gains (U_{RC}), high realization probabilities (p_{RC}), and lower costs of investment (C_{RC}) into receiving country capitals. In almost all Western receiving societies, human capital takes on an extraordinarily important position in determining one's life chances, as these depend on the position in the labor market, which again depends on an individual's endowment with human capital. Moreover, high human capital already indicates a familiarity with a prominent mode of production in receiving countries—this holds at least for (post)industrialized societies.

Hypothesis TN8: The higher an immigrant's human capital, the lower will be her or his transnational involvement.

This hypothesis now obviously stands in contrast to findings of previous research (e.g. Guarnizo et al. 2003; O'Flaherty et al. 2007) in which education is partly understood as an asset for transnational involvement. But we have to consider two

points. First, these studies do not control for both human and financial capital. Therefore, indicators of human capital might be conflated with available financial capital. Second, findings on a positive association between human capital and transnational involvement might very well be domain-specific in the sense that there is a positive relation between education and political transnational involvement. But this might not primarily be an association between human capital and border-crossing activities but between human capital and political participation (Guarnizo et al. 2003, p. 1229; but see Waldinger 2008 for divergent findings).

The role income (and financial capital in general) plays is also ambiguous. On the one hand, income is a central aspect of immigrant integration. It is a major dependent variable in integration research, specifically with regard to questions of structural integration. On the other hand, financial capital is the material base for most investments into capitals on the other dimensions, be they EC, RC, or border-crossing. It is a case in point for a phenomenon that is explanandum and explanans at the same time. Its effect on the realization probability (p_{RC}) of RC-investments is positive, as it endows the immigrant with necessary resources and status that make realizing a beneficial outcome more likely. At the same time, transnational involvement can be costly, depending on the type of activity.[18] In this sense, financial capital also provides the material basis for border-crossing activities. By itself, it creates multiple opportunities, but the way in which these opportunities are employed cannot be determined easily. However, we can assume that one form of transnational involvement is positively influenced by the available financial resources: namely sending remittances.

Hypothesis TN9: The higher the available financial capital, the higher will be the probability and level of remittances.

While employment is an important source for financial capital among immigrants, regular employment itself can prevent border-crossing activities if they require considerable amount of time, as employment "ties" the immigrant to the receiving country. Moreover, gainful employment is an important indicator for successful (structural) integration into the receiving society and this can increase the perceived attractiveness of (further) RC-investments. Therefore, regular employment by itself is supposed to limit transnational activities, increasing the opportunity costs for border-crossing involvement. If we rewrite condition two as $U_{TN} - C_{TN}/p_{TN} > U_{RC} - C_{RC}/p_{RC}$, this becomes apparent: full time employment increases the inequality's right side.

Hypothesis TN10: Being employed will reduce transnational involvement.

With regard to ethnic social capital, we can assume that a (co)ethnically homogenous network is associated with higher transnational involvement. Through reinforcing ethnic modes of production, it increases the expected gains of border-crossing activities (U_{TN}), the realization probabilities (p_{TN}), and reduces costs (C_{TN}).

Hypothesis TN11: A (co)ethnically homogeneous network is associated with higher transnational involvement.

[18] I will disregard transnational entrepreneurship, which, despite its popular position within the scientific literature, represents a marginal phenomenon as shown in Chap. 3.

Conversely, the effect of personal relations with the autochthonous population increases the expected gains of RC-investments (U_{RC}) as well as the realization probabilities (p_{RC}), and reduces costs (C_{RC}). However, due to the way the data on network composition is collected (see Chap. 5 for details), it is unfortunately impossible to assess both the effect of ethnic and receiving country social capital at the same time.

With regard to social capital in the country of origin, we can similarly assume that this reinforces ethnic modes of production, it directly increases the expected gains of border-crossing activities (U_{TN}) and the realization probabilities (p_{TN}) and it reduces costs (C_{TN}).

Hypothesis TN12: Having relatives in the country of origin is associated with higher transnational involvement.

Contextual Aspects While social capital and personal networks are attributes of the individual, they are not independent from the greater social context. If, for instance, the social distance between the immigrant group and the autochthonous population is great because of discrimination and social closure, informal social relations will not be very common. The receiving context thus plays a prominent role in structuring individual opportunities. Taking up the example of discrimination, which will serve as a case in point for social distance, we can infer that discrimination will reduce the perceived realization probabilities of RC investments (p_{RC}) and decrease the expected gains from such investments (U_{RC}). Educational investments are good examples. An immigrant will refrain from investing into RC human capital if she or he is convinced not to be able to realize its gains because of discrimination on the labor market (see Kalter 2003). This will consequently increase the probability that condition two is met.

Hypothesis TN13: If an immigrant experiences discrimination, she or he will be transnationally more active.

Open discrimination is not the only contextual factor which will influence the choice between RC-investments and transnational involvement. When it comes to the ethnic group in the receiving country, we are, nevertheless, able to assess its influence. The ethnic group's effect on the possible investment strategies depends not only on its overall size, but also on its geographical concentration. Because geographical concentration varies even with ethnic groups according to an individual's place of residence, we can try to evaluate how being embedded into an ethnic neighborhood influences transnational involvement. In general, the ethnic group takes a very prominent position for investments into EC-capitals. It can offer the possibility to circumvent the devaluation of ethnic capitals. Whereas ethnic (cultural) capital cannot be efficiently used in the receiving society to assure well-being, it still fulfills this function within the ethnic group (Blau 1994, p. 28 ff.). The larger the group, the more possibilities there are to use one's ethnic capital. This not only depends on the group's size, but also on the group's concentration—foremost in the immigrant's spatial context (e.g. Schunck and Windzio 2009). Consequently, the group size and geographical concentration increase potential gains and realization probabilities, as they increase the opportunities and motives for an ethnic mode of production. The

role the ethnic group takes for EC-investments indicates that there is an overlap between an ethnic mode of production and transnational activities. Transnational involvement can equally serve the purpose of preventing the devaluation of ethnic capitals. This becomes particularly obvious for proficiency in the language of the country of origin, because it is a necessary requirement for an ethnic mode of production in the receiving country (within the ethnic group), as well as for border-crossing activities. It opens up opportunities for these activities and as such increases the realization probabilities (p_{TN}) and reduces the costs (C_{TN}) for such endeavors. Although embeddedness into the ethnic group can, in principle, serve as a substitution for transnational involvement (and vice versa), it generally enforces ethnic modes of production, strengthens ties with the country of origin, and decreases the costs of transnational involvement. This is particularly the case within institutionally complete ethnic enclaves or neighborhoods that offer special services geared toward the needs of immigrants and host ethnic organizations, whose activities span across borders. Therefore, living in an immigrant neighborhood—which serves as a proxy for being embedded locally into an ethnic group—increases potential gains from transnational endeavors (U_{TN}) and realization probabilities (p_{TN}) and reduces costs (C_{TN}).

Hypothesis TN14: If an immigrant is embedded in an ethnic group, she or he will be transnationally more active.

All hypotheses are summarized in Table 4.3 according to the level and the dimension to which they belong. An inferred positive relation between a factor and a term in the inequalities is denoted by a "+", a negative relation with a "−", and in case the direction cannot be unambiguously established, this is denoted by "?". The last column of Table 4.3 presents the assumed overall effect on transnational involvement.

Motivation and Opportunities Revisited Now, some of the above hypotheses may appear simplistic. But we have to consider that these hypotheses are all built on a "*ceteris paribus*" assumption, i.e. all other factors are held constant. However, inferring hypotheses is complicated by the fact that *ceteris paribus* may not be a sufficient assumption, because the effect of one factor might depend on the level of another. Income is a good example: it can provide means for transnational involvement, but it is also a central indicator for successful economic integration. Under the assumption that the dimensions of integration are positively correlated, a high income might reduce the orientation toward the country of origin and increase the orientation toward the receiving country, which would make transnational involvement less likely. But, as argued above, the dimensions of integration are not deterministically linked. Regarding income, we can expect differential effects depending on, for instance, the orientation toward the receiving country.

From the relation between income and RC-orientation, displayed in Fig. 4.10, we can infer the following differential hypothesis: transnational involvement is highest among those immigrants who have the opportunities (high income) and the motivation (low RC-orientation) and is lowest among those who lack both opportunity (low

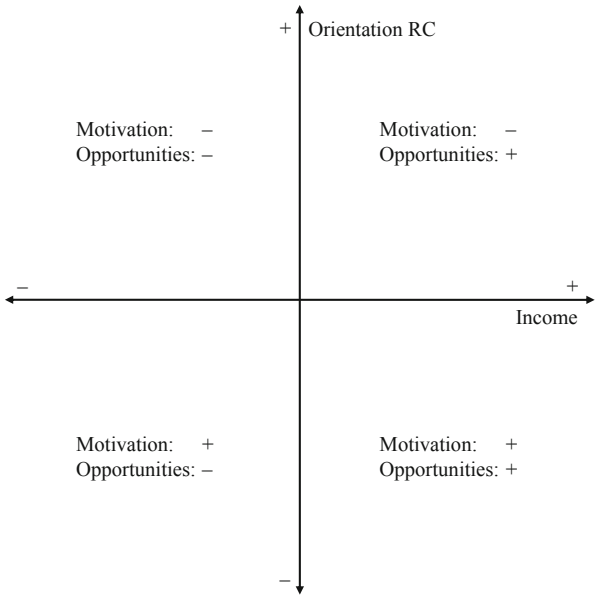

Fig. 4.10 Differential effects of income on transnational involvement dependent on the orientation toward the receiving country. (Source: Modified from O'Flaherty et al. 2007, p. 824)

income) and motivation (high RC-orientation). The effect of the other two configurations cannot be established unambiguously. If the opportunities are completely missing, then the strength of the motive is irrelevant—the inequality specified in condition two is never met, as the term on the right side approaches infinity. If the opportunities for border-crossing involvement are present but the motive for transnational involvement is absent, then condition two is similarly not met. Thus, it depends on the *interplay* of motive and opportunity. Empirically, this implies that the effect of motivation and opportunities is not linear but multiplicative, i.e. it is an interaction. We can generalize such an expectation of multiplicative effects across the different dimensions of integration as in Fig. 4.11.

The differentiation between high and low levels of integration on a single dimension is incomplete, since integration has to be understood with reference to both the ethnic group and the receiving society. This was presented in Chap. 2 in terms of marginalization, segmentation, assimilation, and multiple inclusion. Instead of exploring all possible interactions between all dimensions of integration, the focus will be on the interaction between the structural and the other dimension (see Table 4.4). Since the structural dimension largely determines material opportunities and restrictions, it is perhaps the most important. To simplify this presentation, structural integration is reduced to being either high or low with reference to the receiving society. Not all configurations in Table 4.4 are empirically likely. For instance, structural inclusion into the receiving society is unlikely to coincide with marginalization on the cultural dimension.

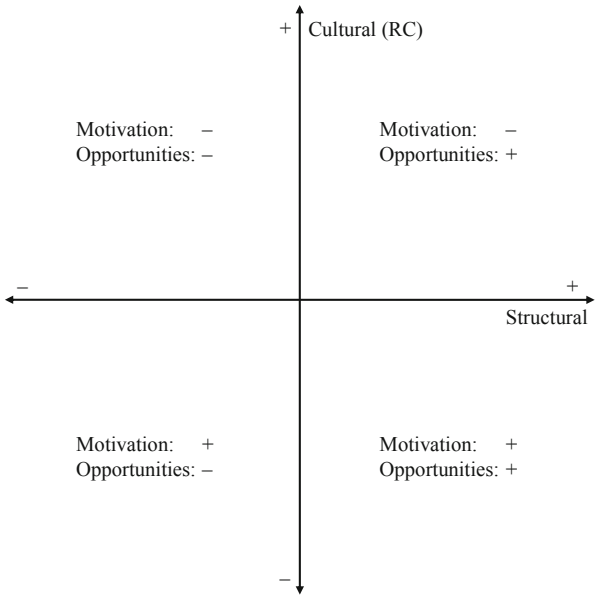

Fig. 4.11 Differential effects of income on transnational involvement dependent on cultural and structural integration into the receiving country. (Source: Modified from O'Flaherty et al. 2007, p. 824)

Other configurations allow for precise predictions. If high structural integration coincides with segmentation on any other dimension, this provides the motive as well as the (financial) opportunities to be transnationally active. Many lower level goals that are important input factors in an ethnic mode of production reduce costs (C_{TN}), increase realization probabilities (p_{TN}), and increase gains of transnational involvement (U_{TN}). Examples of these lower level goals are proficiency in the language of the country of origin or a (strong) ethnic identity. The same holds for high structural integration combined with multiple inclusion on the other dimensions—although the motive is likely not to be as strong, as there is a viable alternative to transnational or ethnic modes of production. If high structural integration is met with assimilation on the other dimensions, immigrants lack the motive to be transnationally active despite opportunities. Overall, for high levels of structural integration, the effect of inclusion into and exclusion from receiving society and/or the ethnic group is straightforward—with the exception of cultural marginalization.

For low levels of structural integration, some of the possible configurations do not unambiguously predict an immigrant's tendency to be transnationally active, since the influential factors at times operate in opposing directions: low structural integration paired with social marginalization is likely to bring forth strong incentives to become transnationally involved, but this may not be within the feasible set of alternatives if the immigrants lack the financial means. This is denoted by "?" in Table 4.4. In this case, the empirical outcome strongly depends on the costs of

Table 4.4 Configurations of dimensions of integration and effects on transnational involvement

Dimension		Structural	
		High	Low
Cultural	Marginalization	?	−
	Segmentation	++	?
	Assimilation	−	−
	Multiple inclusion	+	?
Social	Marginalization	+	?
	Segmentation	++	?
	Assimilation	−	−
	Multiple inclusion	+	?
Emotional	Marginalization	−	−
	Segmentation	++	?
	Assimilation	−	−
	Multiple inclusion	+	?

the concrete transnational activity. Long trips to the country of origin as well as big financial investments seem unlikely, because they are cost-intensive, while low cost involvement should be more likely. The same differential prediction holds for segmentation and multiple inclusion on the other dimensions. If low structural integration coincides with assimilation on the other dimensions, the models' predictions are again clear: the immigrant lacks the motivation as well as the opportunities to be transnationally active. Complementing the above discussion we can thus derive additional hypotheses specifying conditional effects.

Hypothesis TN15: High structural integration met with segmentation (on any other dimension) is positively associated with transnational involvement.

Hypothesis TN16: High structural integration met with assimilation (on any other dimension) is negatively associated with transnational involvement.

4.6.3 The Effect of Transnational Involvement on Integration

Now that we have established hypotheses regarding the determinants of transnational involvement, we can examine the effect of such border-crossing activities on the process of integration. This is done analogously to the above discussion. The question of interest now is: how do transnational activities influence the decision to invest either into EC- or RC-capitals? The relevant conditions thus are $U_{RC} - U_{EC} > (C_{RC}/p_{RC}) - (C_{EC} - p_{EC})$ and $U_{EC} - U_{RC} > (C_{EC}/p_{EC}) - (C_{RC} - p_{RC})$. It is sufficient to investigate the effect of transnational involvement on one of these two conditions, because the represent the same decision. What makes an RC-investment more likely simultaneously makes an EC-investment less likely. Thus, in the following, only one condition $U_{RC} - U_{EC} > (C_{RC}/p_{RC}) - (C_{EC} - p_{EC})$ will be regarded.

Overall, transnational involvement is likely to strengthen modes of production that are dominant within the country of origin. Under the assumption that the modes of production differ, this will make RC-investments less likely, because it increases potential gains from EC-investments (U_{EC}) and realization probabilities (p_{EC}) and reduces costs (C_{EC}). Why is this so? First, there is an overlap in input factors for EC-investments and transnational involvement. For example, proficiency in the language of the country of origin is a prerequisite both for ethnic modes of production within the receiving country as well as for maintaining ties with the country of origin. Assuming that transnational involvement will come along with higher language proficiency, this consequently increases realization probabilities (p_{EC}) for EC-investments. Additionally, the costs of EC-investments decrease if lower level goods, which are required for those investments, are obtained through border-crossing activities. Consequently, the condition $U_{RC} - U_{EC} > (C_{RC}/p_{RC}) - (C_{EC} - p_{EC})$ is less likely to be met and, conversely, the condition $U_{EC} - U_{RC} > (C_{EC}/p_{EC}) - (C_{RC} - p_{RC})$ is more likely to be met.

Hypothesis IN1: Transnational involvement will make integration into the receiving society (i.e. assimilation or multiple inclusion) less likely.

But this general hypothesis on the relation between immigrant integration and transnational involvement, which indicates mutual exclusion rather than concurrence, obviously stands in contrast to other studies' findings (see Chap. 3). How can these differences be explained? The effect of transnational involvement is likely to be mediated by other—individual and contextual—factors. For instance, if there is very little cultural distance between sending and receiving country, transnational involvement is unlikely to exert a strong influence on the process of integration. In the case of cultural similarity, there is great overlap in social definition of the lower level goals that efficiently secure well-being. A person who migrates from one Western (post)industrialized society to another, e.g. from Great Britain to the US, will be much more familiar with the culturally defined goals and institutionalized means in the US than a person coming from a culturally dissimilar context. Theoretically, this implies that EC- and RC-investments are compatible and that those factors which make one investment less costly or more likely to realize similarly effects the other investment—at least to some extent.

Moreover, findings showing that certain types of transnational activities, e.g. political (Guarnizo et al. 2003), are associated with the same factors that are supposed to be an indicator for and a driving force behind integration, e.g. education, actually do not contradict the predictions of the model of intergenerational migration. Indeed, from a conventional assimilationist perspective, it is either-or: either assimilation into the receiving country or ties with the country of origin. But the differentiation into several dimensions of the integration process allows us to deduct much more detailed hypotheses. So, while integration (or assimilation) on one dimension might occur, this does not necessarily imply that it is happening on all dimensions. Similarly, while structural assimilation is an important prerequisite for further integration into the receiving society, by itself it does not rule out being active across borders. Instead, as argued above, structural assimilation might also be a prerequisite for intensive border-crossing involvement. And this extends beyond the material resources necessary for keeping ties with the country of origin. For instance, integration on the structural

dimension might be accompanied by an increased interest in politics as well as by the acquisition of necessary skills to actively participate. But if there are ties with the country of origin, why should this be limited to the politics of the receiving country? The effect of transnational involvement can thus be expected to depend on the aforementioned individual characteristics as well as the immigrant's situation in the receiving country. Table 4.5 first presents the undifferentiated hypotheses. This is followed by an assessment of the differential effects of border-crossing activities conditional upon individual and contextual characteristics.

Table 4.5 shows that for several configurations of transnational involvement the model does not clearly predict how the condition $U_{RC} - U_{EC} > (C_{RC}/p_{RC}) - (C_{EC} - p_{EC})$ will be influenced. In other words, in these situations, the model predicts that transnational involvement and integration into the receiving society act against each other. For instance, if border-crossing activities are paralleled by a strong orientation toward the receiving country, transnational involvement is unlikely to exert any influence. In the following, I will thus concentrate on the instances in which we can derive clear and unambiguous hypotheses on how transnational involvement will influence the integration process and how it will make the four possible outcomes—marginalization, segmentation, assimilation, multiple inclusion—more or less likely.

I will concentrate on a few selected effects that are intended to highlight the theoretical reasoning. A high age at migration paired with transnational involvement will make it less likely that $U_{RC} - U_{EC} > (C_{RC}/p_{RC}) - (C_{EC} - p_{EC})$ is met, because this enforces an ethnic mode of production. Analogous to the above discussion, the logic behind this reasoning is straightforward: in this case, border-crossing activities will increase expected gains from investments into ethnic capitals (U_{EC}) and conversely decrease U_{RC}, increase p_{EC} and decrease p_{RC}, and also increase C_{RC} and decrease C_{EC}.

Hypothesis IN2: Transnational involvement combined with high age at migration will make assimilation and multiple inclusion less likely and segmentation more likely.

On the social dimension, if having a social network that is predominantly comprised of co-ethnics is met with transnational involvement, this can be expected to increase the valuation of EC-investments (U_{EC}), decrease their costs (C_{EC}), and increase the expected probability to realize their gains (p_{EC}).

Hypothesis IN3: Transnational involvement combined with a (co-)ethnically homogenous network will make assimilation and multiple inclusion less likely and segmentation more likely.

As above, it does not exclusively depend on the individual characteristics but also on features of the context. In particular, cultural and social distance again play a crucial role. In both cases, we can expect transnational involvement to magnify their effect, as it enforces ethnic modes of production. Again, as it is unfortunately impossible to test the effect of cultural distance with this study's data, the focus will be on (individual) experiences of social distance.

Table 4.5 The effects of transnational activities on RC- and EC-investments

Factor			Condition						
			$U_{RC} - U_{EC} >$		(C_{RC}/p_{RC})		$-(C_{EC}/p_{EC})$		Overall
Transnational activities					+		−	+	−
Transnational activities X									
		Age at migration	−	+	+	−	−	+	−
Individual	Emotional	Identification with RC	+	+	+		−	+	?
		Identification with SC	−	+	+				−
	Cultural	Language proficiency (RC)			?	?	−	+	?
		Language proficiency (SC)			+		−	+	−
		Human capital	+	+	?	+	−	+	?
	Structural	Labor force status	+	+	+	−	−	+	?
		Income	+	+	?	+	−	+	?
	Social	Network (RC)	+	+	?	+	−	+	?
		Network (EC)		+			−	+	−
Contextual	Receiving context	Social distance	−			−	−	+	−
		Ethnic group		+			−	+	−

U the utility, C costs, p the realization probabilities of the respective alternatives (RC, EC)

Hypothesis IN4: Transnational involvement combined with experiences of discrimination will make assimilation and multiple inclusion less likely and segmentation more likely.

Table 4.5 concentrates on some of the arguably most important manifest characteristics of the different dimensions of integration. Regarding the interactions of transnational activities with dimensions of integration, the above discussion should cover all relevant aspects. Of course, we might come up with additional manifest characteristics that could interact with border-crossing involvement and influence investment decisions. However, at this time this is unnecessary, as it would not change the theory's predictions. Now that we have a set of concrete hypotheses on the determinants as well as the consequences of transnational involvement, the next step is to put these hypotheses to the test by investigating how well they conform to empirical reality. Before doing so, the next chapter offers a discussion of the methods this study employs to test the model's predictions.

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