Chapter 2

Relationships and embedded resources

In Chapter 1, a general theoretical outline was presented for the construction of social capital measures in this study: a focus on positive resource potentials across life domains, embedded in individual social networks of the general population. This chapter discusses the micro-elements that constitute social capital. First, the mechanisms of relationship formation are discussed, followed by a consideration in which way these relationships may lead to the exchanges of resources between individuals. How resource collections embedded in social networks may be useful for the individual is considered in a second part of the chapter.

2.1 Relationships

2.1.1 Social ties

Social capital exists by virtue of the presence of social relationships: they are the ‘channels’ through which social resources may become available from one individual to another. Usually, interaction with others is regarded as pleasant, stimulating, or comforting; it is considered one of the basic requirements of overall human well-being (Lindenberg, 1996). People engage in enduring contacts with others not only voluntarily, but also eagerly. Therefore, the creation, maintenance and use of social capital is essentially a natural process, and in social reality it is generally not consciously perceived as the system of rational and instrumental activities presented in social capital theory (see also Section 2.1.4).

In the social networks and social capital literature, network members are referred to as ‘alters’, whereas the focal actor under consideration is referred to as ‘ego’; social relationships are generally indicated as [social] ties, denoting any kind of social relationship, in any context, between two network members of any kind (Wasserman & Faust, 1994:18). When both actors experience about the same level of commitment, a tie is reciprocal; when the level of commitment experienced is dissimilar between both involved actors, ties are asymmetrical; when only one of two actors recognises commitment, this tie is unreciprocated (Wasserman & Faust, 1994:124). Not every social tie represents social capital: business ties are characterised by payment or the presence of institutionalised
arrangements, such as contracts; personal ties are maintained on a basis of reciprocity and personal interest. In this study, only personal ties are considered.

In order to verify the existence of a social tie, a theoretical distinction could be made between cognitively perceived and actually existing ties (Marsden, 1990). To some degree, it remains more or less arbitrary to assess whether a tie ‘exists’, especially since relationships have a transitory character. Theoretically, a reliable assessment of the existence and nature of a social tie should be based on information from both parties, since in its perception differences may exist between views from both actors. Mainly for practical reasons, unilateral reports have been the most important sources of empirical relationship data in social network studies; alternative, written sources can be more objective, but have been less popular.

For the measurement of social capital, tie assessment is usually based on self-reported information, and thereby mostly on cognitive perception of relationships. This perception may fluctuate over time, and introduces the questions whether such measurements are valid and reliable: would the same information be retrieved when the alter at the end of tie would have been interviewed too? On-going relationships in social networks are usually stable and reciprocal, and reporting their existence in e.g. interview situations is therefore relatively straightforward (see Section 5.1.4). However, there is always the possibility that such reports include some degree of over- or understatement.

First, there is always a probability that ego-reported relationships with alters are not experienced by the listed alters, because there is an asymmetrical or unreciprocated relationship, or because it can be tempting to over-report interactions with attractive others (Feld & Carter, 2002). This leads to the measurement of false social capital: inferences about relationships and embedded resources that cannot be accessed in reality, and are therefore overrepresentations of social capital.\(^1\)

A second measurement challenge is the reverse situation: social capital may be located at alters who are unknown to ego or seem unimportant, but who do know ego (Burt, 1992; Burt & Celotto, 1992; Flap, 1991); this could be labelled hidden social capital. Even without a reciprocated relationship people can be helpful, by giving referrals to others without the presence of ego, and who can therefore be important for one’s reputation – an example of such ‘hidden’ social capital is formed by employees who know staff members, but not vice versa. In exceptional cases, resources or favours can be received from complete strangers, such as when ego is a famous person (Flap, 1991). In these cases, asking ego for self-reported ties will result in an underrepresentation of social capital. The methodological problem with this ‘hidden social capital’ is that by definition, it cannot be assessed in unilateral reports. However, although the resources of unknown others may be helpful in individual goal attainment, they do not result from a previous relationship between two actors; consequently, exchanges of resources between such persons are not returns to specific previous investments. Compared to the working definition (Section 1.3.5), such help offerings are not social capital. Since it is also nearly impossible for individuals to anticipate and manage such ‘contacts’, ‘hidden social capital’ is therefore not further considered for measurement in this study.

\(^1\)This problem surfaces for example with the Position Generator measurement instrument (Chapter 6), where institutional or business relationships that have a less strong personal basis (or no personal basis at all) can be reported as social capital.
2.1. RELATIONSHIPS

2.1.2 The social network

Relationships that may influence individual collections of social capital are theoretically not limited to the ties to alters a focal individual knows on a personal basis. A ‘social network’ also consists of relationships between alters.

Transitivity

Existing ties can also be a source of new ties: relationships often show *transitivity* (Wasserman & Faust, 1994:165) because “friends of friends will be friends”. When this idea is extended to social capital, alters not only give access to their personal resource collections, but also form a stepping stone to *their* social networks and social capital. The collection of alters that forms this ‘second order network’ (Boissevain, 1974) is theoretically much larger than the collection of alters personally known by ego, and may therefore be especially important in terms of power, influence, and information. This leads to the idea that ‘alters at distance two’ can also be part of ego’s social capital (Sik, 1994). However, with alters at distance two, there is usually no shared history involving prior investments in the relationship. In addition, people are not likely to be very well-informed on their alters’ social capital. Although the existence of such alters can be established with observation or snowball sampling (Spreen, 1999) alters at distance two and higher are disregarded in the remainder of this study.

Structure

In addition to the resources of ‘alters’ alters’, patterns of connections between social network members can have an additional influence on the availability and content of social capital (Flap, 2004). Many potentially useful network configurations have been considered with respect to the mobilisation of embedded resources for individual goal attainment (see e.g. overview in Borgatti, 1998). The most important considerations are based on the implications of different forms of *network density*: the number of actual relations in a network in proportion to the maximum possible number of relationships. Since a high network density increases the number of ‘friends of friends’, the density of a personal network is an indicator of network transitivity, since all network members are tied to the focal person (ego).

‘Closed’ high density networks, in which many alters know each other and have strong ties to each other, have been considered as important in shielding persons from mental and physical stressors (e.g. Kadushin, 1982), especially in lower economic strata (Fischer, 1982a). Closed networks can also be useful in emergency, disaster and pioneer situations (Hurlbert, Beggs, and Haines, 2001). Finally, and perhaps most importantly, empirical research has shown that people with dense networks live longer (Berkman & Syme, 1979; House, Landis, and Umberson, 1988). Coleman (1990) postulated that social networks with high ‘connectedness’ are beneficial based on arguments about social cohesion: if all people in a group know each other, they can share the same normative system and have a more effective sanctioning system, which contributes to trust and the actual mobilisation of potential support. Denser networks with more intimate and reciprocal relations may also increase the likelihood of mobilising others because they are more likely to have shared interests (Lin, 1999a).
By contrast Burt (1992), drawing on Granovetter’s (1973, 1974) ideas about the functions of bridges and weak ties in social networks (see also Section 2.1.3), postulated comparative advantages for social capital embedded in open, low density networks. Imperfectly connected social networks with so-called structural holes can be more valuable for individual goal attainment for two reasons. First, in such networks people are less likely to share the same information or own the same resources, and thus they can benefit from each other. Second, openness of the social network structure has advantages in terms on information and control: an open structure improves one’s bargaining position (Burt, 1992).

Measures of either network connectedness or openness have limited use as social capital indicators, since their values, deduced from quite opposing theories, are highly contextual. Therefore an integration of both arguments has been suggested (Burt, 1999, 2001; Lin, 2000). Closed networks can provide comfort and safety more easily, and are useful when cooperation and agreement are needed. Open networks can provide better opportunities and information; for example when searching for a job, a competitive relation with other people is desired instead of closure. For the measurement of general social capital of a general population, measures of network structure are problematic. First, they show limited content validity: they do not directly refer to tangible social resources, but to patterns of relationships only. Therefore, they form only a partial operationalisation of social capital. Second, for the construction of structural measures detailed information would be required about relationships between all actors included in a sample. It is highly impractical to aim to uncover the network structure of a general population, however, and more logical to use a population sample with ego-centered network information. With this method, information about connections between alters can be collected to a very limited extent only. Therefore, network structure is largely disregarded for the operationalisation of social capital in this study.

2.1.3 Tie strength

The willingness of alters to provide resources to ego is usually equated to the intensity of social relationships, or tie strength. The general idea behind this is that alters with whom more intense relationships are maintained will also be more willing to help. In social capital measures, the concept of tie strength can therefore be used to indicate how accessible social resources are through a certain relationship.

In daily social interaction, the perceived difference in strength of social relationships is indicated by the use of different labels as ‘friends’ or ‘acquaintances’. International research shows however that across countries (Höllinger & Haller, 1990), and even within cultures (Fischer, 1982b) people handle such labels differently and inconsistently. For the standardisation of measures in social capital research such denotations are therefore not very useful. Most social relationships move through various stages of closeness or intensity: their evolution is a gradual, cumulative process in which different labels are given to the various stages through which a relationship may go (see e.g. Van de Bunt, 1999; Zeggelink, 1993, and Section 2.1.3). However, in a social capital context social relationships are usually observed cross-sectionally, and the strength of relationships is typically expressed

\[ ^2 \text{Although network sampling may provide a solution to this problem in future research, see Spreen, 1999.} \]
2.1. RELATIONSHIPS

in terms of ‘weak’ versus ‘strong’ (Granovetter, 1973), where close and intimate social relationships are referred to as strong ties, and more superficial ones as weak ties.

In many social network and social capital investigations, the operationalisation of tie strength remains implicit. Granovetter (1974) however suggested that the strength of a relationship is dependent on four components: the frequency of contact, the length or history of the relationship, contact duration, and the number of transactions. Although some studies explicitly investigated (Burt, 1983c) or quantified these four dimensions (Boxman, 1992; Boxman, Flap, and Weesie, 1992), tie strength is usually operationalised with single indicators. More detailed research showed however that the overall concept of ‘tie strength’ mostly coincides with the perceived closeness of a relationship (Marsden & Campbell, 1984), and that contact frequency and contact duration are distinct aspects (Marsden & Campbell, 1984; Wellman & Wortley, 1990).

Strong ties

Strong ties are relationships characterised by trustworthiness: close, long lasting contacts with others with a steady expectation for the future. Many kin relationships are strong ties, although not all ties with kin are strong (Völker & Flap, 1997). Families also form an opportunity context in which choices have to be made about with whom to interact, and in whom to invest (Hoyt & Babchuk, 1983). Outside the context of kin strong relationships tend to be developed with people that are in many respects similar to ego. Alters with whom strong ties are maintained are often from the same social class, and own similar amounts of similar kinds of resources as ego. Because transitivity is more likely for stronger ties, they more easily form dense network clusters and therefore also tend to share a lot of the same information when contact frequency is high. Lin (2001a:66) therefore states in his strength of strong ties proposition that access to similar others specifically influences the success of expressive actions (see Section 1.3.3), which require resources similar to one’s own.

Strong ties have a specific advantage in that they are relatively reliable, reciprocal, and show strong solidarity. Because network members known through strong ties usually show a lot of willingness to help, social resources accessed through strong ties show a high availability; they can form some kind of ‘help insurance’, and can therefore be especially useful in providing support in times of economic and emotional crises (Flap, 1976). In addition, news travels faster through strong ties (Granovetter, 1985), and people linked through strong ties can more easily reward each other (Flap, 2004). Strong ties typically provide companionship, emotional support, help with everyday problems, and being taken care of when one is ill (Wellman & Wortley, 1990); these are all forms of support that highly depend on willingness and availability, and less on the presence of very specific skills or resources. Since for the attainment of instrumental actions (see Section 1.3.3) resources different from those owned by ego are more useful (Lin, 2001a:50), strong ties are theoretically less practical for the attainment of instrumental goals. However, it may be possible that instrumental goals can be achieved better when the means to achieve expressive goals are present as a prerequisite: a steady personal social environment may be a requirement to move further up the career ladder (Baron & Podolny, 1997).

The stability of strong ties implies that they can also be very demanding regarding one’s own, personal resources. This may increase to the point where strong ties act as
‘social liabilities’, because they constrain individual behaviour by their strength (see Section 1.3.2). Since strong relationships are less easily discontinued than relationships with non-kin, such constraints may also continue for longer periods of time.

**Weak ties**

Weak ties are the natural beginning of any social relationship (except those with siblings and parents), but usually the term is reserved for less close relationships without considering the dynamics of the relationship. Whereas strong ties usually link us to people like ourselves, many scholars have argued that weak ties connect us to more diverse people. Weak ties are of shorter duration, less intensity and intimacy, and with fewer reciprocal services than strong ties (Flap, 1991:6182). The specific advantages of weak ties were originally worded in the often quoted work by Granovetter (1973, 1974) as the *strength of weak ties*: people with characteristics different from ego may give access to information and resources different from personally owned resources. Relationships maintained with such alters are more likely to be weak ties. Therefore, weak ties are expected to reach across social cleavages, and to form *bridges* to other networks.

The argument of the strength of weak ties was taken up by other authors in several ways. As discussed earlier, Burt (1992) developed the idea of the strength of weak ties focusing on network structure. Incorporating the idea into social capital theory, Lin (2001a:67) postulated in his *strength of weak ties proposition* that social capital resulting from weak ties brings advantages in situations associated with *instrumental actions*, where resources dissimilar to one’s own resources are important: usually, the resources of dissimilar alters differ from our personal resources, and can therefore be helpful. In addition, weak ties are potentially useful because they produce a higher likelihood of having access to higher prestige. However, the effectiveness of weak ties is hypothesised to be contingent on one’s own position, with smaller positive effects expected for those with very low or very high prestige (Lin, 2001a:74–75).

Weak ties also have disadvantages in terms of social capital. First, the availability of resources from weaker ties is more uncertain, because these relationships need more maintenance and re-establishment. Exchanges with weaker ties are usually also more specific regarding the exchanged resources (Degenne et al, 2004). Burt (2002) found that especially bridges in networks have high turnover rates, which make such ties harder to detect, and also questions their usefulness as social capital. Finally, there is a class of relationships that could be called the weakest or ‘sleeping ties’: infrequent contacts that are not part of the core network, which could be mobilised (Wellman, 1981), but may only be thought of on very special occasions.³

Summarised, weak ties can have distinct advantages, but may also be less reliable. Since the expected benefit of weak ties is their function of bridging between different networks, it can be concluded that bridges that are strong ties are even better social capital (Burt, 1992).

³The difference between ‘sleeping ties’ and ‘hidden’ social capital (see Section 2.1.1) is therefore only that ego was once cognitively aware of the former. In reality, these two types may be one and the same.
2.1. RELATIONSHIPS

Similar to discussions about beneficial forms of network structure-as-social capital (see Section 2.1.2), this question can be rephrased in a specification question of the conditions under which certain ties or certain network configurations can produce more advantageous returns (see e.g. Flap, 1976). For social capital measurement, constructing measures based on the presence of weak or strong ties in networks introduces problems similar to those for measures of network density: they do not measure resources. When considered for inclusion in measurement of general social capital, multiple measures indicating weak and strong ties should be considered. One of such measures is considered as an indicator for social capital in Chapter 5.

2.1.4 Ties as capital: formation, investment and maintenance

In previous sections, social ties were discussed as steady elements within social networks. However, more realistically seen, social ties are temporary outcomes of dynamic processes influenced by actions from both involved actors. All social relationships have a transitory character, and start and dissolve at some point in time, ultimately by the death of one of the actors involved. In this section, the focus is therefore on changes and actions associated with the creation and maintenance of social relationships. When the initiation and continuation of relationships is understood, it can also become clear how they may lead to accessible social capital.

Relationship formation

To initiate contacts with others, individuals need to move around in contexts where other persons can be met, such as locations of the home, the neighbourhood, and the work place: without meeting there will be no mating (Verbrugge, 1978). Such physical and organisational requirements for relationship formation have been referred to as the opportunity structure (Van de Bunt, 1999). Accessing a more favourable opportunity structure can be an explanation for a more successful formation of friendships (Van de Bunt, 1999), and the resulting size of networks (Blau & Schwartz, 1984); therefore, it is also a relevant concept to consider for the creation of better social capital. People that have a job, and members of voluntary organisations theoretically meet more and more different other individuals with which relationships can be formed. However, support is mixed whether organisation membership indeed leads to better social capital – this is also dependent on characteristics of fellow members met through membership and the type of organisation (Miller, McPherson, and Smith-Lovin, 1987; Lubbers, 1998; Bekkers, Völker, Van der Gaag, and Flap, 2005).

Within a certain opportunity structure, individuals have to choose with whom they further want to develop relationships. Creating contacts is generally less costly when potential alters have characteristics similar to one’s own, which leads to the often observed phenomenon of homophily: a liking for others who are similar (Homans, 1950; Lazarsfeld & Merton, 1954; Lin, 2001a:38–40; review in McPherson, Smith-Lovin and Cook, 2001). First contacts select people somewhat like ourselves on the basis of easily visible characteristics, such as dress code, smoking behaviour, gender, and age. When relationships with such contacts evolve into stronger relationships, a more thorough selection takes place on still other criteria of ‘similarity’ (e.g. Zeggelink, Van Duijn, Hiramatsu, Stokman, and
CHAPTER 2. RELATIONSHIPS AND EMBEDDED RESOURCES

Wasseur, 1999). Generally, people choose friends who are very much like them in terms of occupation, education, and income (Stewart, Prandy, and Blackburn, 1973; Degenne & Forse, 1999:32–35), or ‘class’ (Marsden, 1987). Homophily has long been established in studies showing consistent patterns of marriage between people with similar cultural and economic occupational status (Merton & Lazarsfeld, 1947; Laumann, 1966, 1973; Lamont, 1992; Kalmijn, 1994; Prandy & Bottero, 1998; Kalmijn & Flap, 2001), and making more general choices in life, denoted as ‘lifestyles’ (e.g. Ganzeboom, 1988).

Social networks do not only consist of similar others, however. More generally, it can be argued that relationships are formed with those others from which greater returns are expected (Flap, 1999). These are not always the most similar others available: other bases on which contacts are selected and initiated are attractiveness on the basis of [slightly] higher status positions (Homans, 1950), or tradition (Erickson, 2004a:29). In addition, not all social relationships are based on the voluntary selection of the most rewarding or comforting persons from a population. For example, one class of relationships exists because people are born into them: parents, siblings, and more distant kin in general. In contrast to all other social ties, which could be called achieved ties, kin relationships are ascribed ties. Ties with kin are strongly embedded in a normative system: in most cultures, maintaining good contacts with kin, and helping them in times of need is a normative obligation, which stabilises these relationships and makes them very reliable, with steady expectations for the future. The same norms guarantee that most personally owned resources are available to kin: during one’s lifetime one is the social capital of family members, but also afterwards in the form of inheritances. Since such resource collections may contribute to goal achievement without having to perform any action in return they may also be seen as endowments (Flap, 2004). A very clear example of endowments are relationships maintained with godmothers and godfathers, who provide social capital ‘for free’ by appointment of one’s parents (Angelusz & Tardos, 2001); for the Netherlands in particular, Moerbeek (2001) found that over the life course, achieved ties increase in number, whereas the number of some of ascribed ties decreases. Exchanges of resources between kin are frequent, and because of their steady expectations and normative subduedness, relations with kin are also less sensitive to violations of reciprocity (see Section 1.1.3): future help is often secured regardless of ego’s (nonperformance of) actions.

Behind the formation of many relationships there is also an element of necessity, because an opportunity structure also involves contacts with more dissimilar others such as neighbours, colleagues, and supervisors. In such contexts, relationships can still emerge; dissimilarities can then be overcome because there is a shared future (see below). For the creation of ties with dissimilar others there must be a clear advantage to go outside one’s own ‘league’, however: it is costly to engage in relationships with alters who are very dissimilar. This explains why people often do not actively create weak ties (Flap, personal communication).

Recently, personality characteristics have begun to be considered as a third important determinant in relationship formation, suggesting that some of the generally distinguished five components of personality – extraversion, agreeableness, conscientiousness, emotional stability, and intellect (Digman, 1990) – have a considerable impact on personal network formation (e.g. Vodosek, 2003; Negrón & McCarty, 2003). This aspect of social

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4The social network also influences personality; Coser (1975) considered that feelings of personal
2.1. RELATIONSHIPS

relationships lies within the research domain of psychology, and is beyond the scope of this study.

Two economic factors also play a role in relationship formation. First, the creation and maintenance of relationships involves spending resources. Time and resource budgets therefore limit the extent to which an individual collection of network relationships can be expanded. However, the matching of available time slots between people may be more important than the absolute time available (Flap, 2004). Second, investing in additional social relationships shows diminishing marginal returns. Therefore, it can be expected that there will be less incentive to invest in new or more contacts with others when a well-functioning, varied social network is already present: the current state of an individual’s social network is also an important factor in the formation of new relationships (see also 3.2.1).

Investment

Within the perspective of social capital, the formation and maintenance of relationships are modelled as economic activities (see Section 1.1.2). The ‘capital’ metaphor comes from the fact that the actions taken in creating and maintaining relationships are needed to eventually harvest benefits from it, and can therefore be seen as investment. However, these investments are not always deliberate and goal-oriented, but also often happen as a by-product of other actions. Whether social relationships are invested in is not only dependent on characteristics of the relationship itself, but also on several macro level factors that may influence the expected returns to social capital: there will be less investment in social relationships when goals can also be attained with the use of personal resources (see also Section 1.3.4). Generally, investments in relationships are dependent on the presently perceived value of future returns from relationships; if social capital is less helpful in goal attainment, investments in relationships are less useful (Flap, 1991:6183). How investments in social capital are made, under which circumstances these result in which kind of social capital, and how these investments may contrast as ‘costs’ to future returns is the topic of an emerging separate line in micro-economic research (see e.g. Riedl & Van Winden, 2004; Sonnemans, Van Dijk, and Van Winden, 1998).

Maintenance

At regular intervals, time, attention, and resources have to be spent on established social relationships to keep ego and alter aware of the contact, and interested in it. Whereas ‘investment’ is used in connotation with the creation of relationships and social capital, spending resources on the continuation of established relationships is more commonly denoted as maintenance. Also spending resources on others are technically relationship costs, regarding pleasant relationships this is generally not seen as a burden: contacting alters is often seen as pleasant, and has no other reason than the contact being rewarding in itself. Therefore the creation of social capital that evolves from, and is sustained by these actions is often unintentional and emerges as a by-product. Although maintenance and investment are sometimes intentionally performed to establish or re-establish faded autonomy can be derived from having a satisfactory social network.

5 Or, in Dutch, “de kost gaat voor de baat uit”.
personal relationships, openly discussing these as an explicit reason for social activities is regarded as inappropriate in many cultures, and considered manipulative or opportunistic.

Both actors in a social relationship keep an eye to the history and future of their commitment, and tend to balance their actions in terms of costs and rewards. Usually few people are aware of the resources they spend on relationships with others however, although the balance of reciprocity may be frequently checked subconsciously. Only when unbalanced actions are being experienced this balance may become an important cognition and become more closely observed by both involved parties: if one hasn’t heard from a friend in years and is suddenly asked for help, this may be felt as unbalanced, opportunistic, and may subsequently be refused (Van Busschbach, 1996).

For social capital the necessity of tie maintenance means that it has a discount rate (Flap, 1999). The faster social capital has to be discounted, the smaller will be the expected future value of present social capital and the more investments are necessary to keep the relationship going. The maintenance needed varies over kinds of ties. Strong ties, with similar others, are relatively easy to maintain: good friends will generally still be good friends even if they only see each other occasionally. The longer a relationship has been kept going, the lower the maintenance costs (Van Busschbach, 1996). Since the costs of maintenance are low, the rewards are relatively higher for strong ties (Homans, 1974; Van Busschbach, 1996); mutual emotional rewarding is also easier (Homans, 1974). Relationships between such as parents and children are usually stable and easily maintained, and hence a good basis for mutual support. For weaker ties, maintenance is more frequently needed than for strong ties: there is less mutual trust, and more frequent signals have to be exchanged to keep the relationship going (see also Section 2.2.2).

Van der Poel (1993) empirically found that the perceived gains of network relationships in general increase when the number of other relationships is smaller: there is a higher likeness to discuss personal problems with others, and the weight that is attached to such relationships is higher. The costs of network maintenance rise with reduced possibilities of contact, when the travel distance between persons becomes greater, and when shared history is shorter (Van der Poel, 1993). Cumulatively, the maintenance costs of all social relationships determine the eventual size of the individual social network: there is a maximum amount of time and resource budgets that can be spent to keep it going. Typically, people who can maintain larger numbers of strong ties are those with better jobs and education (Fischer, 1982a). Grouped alters in a specific setting, such as fellow members of a voluntary association, may provide ‘cheap’ social capital: these larger numbers of ties can be maintained together at the same time, with less costs.

The idea of investment and maintenance in relationships can also help understand why these usually have a transitory character. As interest in a relationship and the opportunity for its maintenance may not remain constant over time, at a certain point maintenance costs can become perceived as outweighing future returns to social capital. Seen from the other end of the tie, the willingness with which others will continue to give access to their resources is dependent on what this may have in store for them in the future. An unequal balance of relationship costs and returns can therefore be a reason to discontinue a relationship. With few exceptions (severe arguments, excommunication, exile, death) most relationships are not actively discontinued but being left to ‘fade away’. Quitting relationships is not easy, also from an investment point of view. Long-standing relationships are less attractive to quit, because a lot of relation specific costs have been
made to keep it going: people share friends and possessions that emphasize the tie (Rusbult, 1987). Sometimes, such investment decisions can explain why people ‘overstay’ in unhealthy relationships characterised by such as marital violence (Van Busschbach, 1996; Rusbult & Martz, 1995).

2.2 Exchanges

The basis of social capital is that it is attractive for individuals to exchange resources with each other. Basic concepts in understanding how such exchanges can work are trust and reciprocity.

2.2.1 Reciprocity

A norm of reciprocity – balancing receiving and taking – exists all over the world and is one of the central prerequisites for social capital (see Section 1.1.3). General ideas on reciprocity were originally worked out in the field of anthropology by Malinowski (1922): there are differences in the degree to which people expect returns. Sahlins (1974) built further on these ideas, by proposing that when kinship distance increases, less reciprocity and solidarity are experienced from a relationship. He constructed a continuum for reciprocity, based on time span and equality of exchanged goods. When the time lapse between an offered resource (a gift) and returned resource is short, and contents are about equal, there is balanced exchange. If this time lapse is longer, unspecified, and contents of the gifts are of heterogenous nature, there is generalised reciprocity. There are also cases of unreciprocated action. If the gift is not returned, this is called a pure gift. If the gift is involuntary, this is called a theft, or negative reciprocity.

By means of barter, directly balanced exchanges of goods are only possible to a limited extent. Because the common evaluation of goods and services is complicated, and there often is no ‘coincidence of wants’ (Edgeworth (1881), cited in Coleman, 1990:119), barter can lead to difficulties. To resolve this problem, two procedures developed to split a transaction in two halves. First, there has been the development of money, an indirect exchange good that can form a generalised means of exchange (Coleman, 1990:119). The money itself is worthless, but it forms the security that a lack of trust is overcome, and a transaction is completed. Another solution is generalised exchange between two parties (see above). When resources are collected by party A, following norms of reciprocity party B receives the rights to make future claims on some of party A’s resources. This is the basis for social capital transactions: by allowing for such these relationship-specific debts or ‘credit slips’ (see 1.1.3), people oblige each other to perform tasks in the future. People generally do not like to have debts, and the importance of reciprocity in social relationships therefore limits the number of claims being made on network members.

\[6\] The incongruity of different kinds of resources is also problematic in the quantification of social capital, see Section 3.2.

\[7\] In addition to reciprocity, altruism can become an important rationale for exchanging goods: an internalised morale to improve self-approval and self-evaluation (Coleman, 1990:518).

\[8\] In the competition for status, generalised exchange has also led to the phenomenon of overreciprocal, where people outdo each other in returned favours, to keep these commitments going (Sahlins, 1974).
The need for reciprocity varies for the exchange of different resources: giving information can be practically ‘for free’, or without expectation of information in return, and generally compensation is not asked or expected for each Euro or cup of sugar that is borrowed. The need for reciprocity also varies over relationships: since weaker ties are less based on trust than stronger ties, they require quicker reciprocity (Van Busschbach, 1996; Wellman, Carrington, and Hall, 1988). Exchanges with different ties also differ in motivation; exchanges with weaker ties, are more often motivated by *empathy*, whereas exchanges with kin can more often have a character of *duty* (Degenne et al, 2004). In long-lasting relationships it can be difficult to assess whether all exchanges are balanced, which therefore decreases the importance of reciprocity.

### 2.2.2 Trust

In Section 1.1.3 a ‘general level of trustworthiness’ was referred to as a macro-level prerequisite for social capital transactions. However, also on the micro level *trust* is essential to exchanges with social capital. As generalised exchange is at the basis of social capital transactions, the creation and use of social capital can only occur when relationships are considered trustworthy enough to leave one half of a transaction completed: faith is needed in the honesty and reliability of others, that helps overcome perceived risks. Without such faith, transactions can only made under direct reciprocity with balanced exchanges (such as successful barter and monetary transactions), or under monitoring by formal, trust ensuring arrangements, and contracts enforced by some third party (Buskens, 1999). In the context of social capital, trust is therefore “a lubricant that eliminates the need for third party ensures or enforcers” (Paxton, 1999:98).9

Because generalised exchange with social capital is based on transactions completed in halves (see previous section), there is always a risk that a debt will never be paid back. One party may collect resources, and never return a favour in the future, either by accident (death, illness) or on purpose (defection, moving, hiding). In the latter case, this will generally be perceived as *opportunism*, which may lead to reduced access to network members’ social resources in the future, or gradual termination of the relationship.10 This problem, in which both ego and alter can anticipate being taken advantage of, is similar to what is known as a ‘trust game’, and may lead to situations where neither party takes action, leading to suboptimal outcomes (Dasgupta, 1988).

A single actor will only put trust in a potential exchange if he perceives the potential gains to outweigh the losses, involving a personal estimation that the other actor can be trusted (Coleman, 1990:99). In addition, dependent on the subject of exchange, also a time frame should be considered in placing trust. Trust placed in relationships is dependent on the expectation to see each other again in the future, worded by Axelrod (1984) as the *shadow of the future*. Since a longer shadow of the future increases the time span for reaping rewards as well as the opportunity to exert sanctions against reciprocity violations, it decreases the likelihood of opportunism, and sustains future benefits. If the likelihood

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9Trust has become so central to social capital research, that in some cases the concept has become equated to, or an indicator of social capital itself. Many studies in collective level social capital research include operationalisations based on indicators of generalised and/or personal trust (see Chapter 1).

10Not all unreciprocated relationships are terminated however, and reciprocated relationships are nevertheless sometimes voluntarily terminated (Husaini, 1982).
that an alter will be met again is very small, not reciprocating support will have less serious consequences, and opportunism becomes more attractive.\footnote{The same holds true for potential givers of help: helping strangers – with which there is no shadow of the future as yet – is easier to refuse, as sanctions are unlikely.} A longer shadow of the future of a relationship increases the availability of social resources, since it enables generalised exchange, and more specifically balanced exchanges over longer periods of time. It also lowers the threshold for social capital exchanges, because favours that have to be returned in a distant future are of less value to actors in the present (Flap, 2004). Strong, robust relationships have the expectancy to still exist in a far future, and therefore can act as a guarantee for placed trust, and that the debt will be incurred. If the shadow of the future is large enough, investments will retain their value, and are more safe. Experimental research shows that investments in relationships are directly correlated to the perceived shadow of the future (Riedl & Van Winden, 2004); a reduced shadow of the future may therefore cause advantageous, opportunistic behaviour.

The shadow of the future varies over relationships with alters, and has a moderate association with the strength of the relationship. Close relationships usually imply a stable future for the relationship; close kin, partners, and ‘best friends’ have the longest shadows of the future, making the associated social capital very reliable (see also Chapter 5). In family relationships, guaranteed trust placements are therefore more strongly present. However, many weak ties, such as neighbours, colleagues, and distant kin also have long shadows of the future. Because of the steady context in which they are met, the expectation to meet these alters in the future are also stable.\footnote{Personal relationships with a brief shadow of the future are more rare, and include those in many temporary settings. For strong relationships the shadow of the future is usually only shortened by special circumstances: terminal illness, old age, or emigration. Weak relationships with a brief shadow of the future include e.g. flex worker colleagues and holiday relationships.}

A notion that is related to the shadow of the future is the shadow of the past, the mutual history of exchanges in a relationship (Mauss, 1922). The longer alters have known each other, and the more has been experienced together, the more relation-specific investments have been made, more trust is involved, and the more willing they will be to help each other. Old friends and family members will therefore generally be more willing to help than recent acquaintanceships. Shared history offers the opportunity to learn about the reciprocity of ties from experience, and use this knowledge as a basis for future exchanges and maintenance of relationships. When a transaction partner has proven to be trustworthy, this feeds the guarantee that trust can also be placed in future exchanges. The longer a relationship has been kept going, the more certainty there is generally about a shared future, which positively influences trust and willingness to give support: a long shadow of the past therefore implies greater access to social capital. Furthermore, a long shadow of the past also decreases the maintenance costs of a particular relationship (Flap, 2004).

Information on the history of exchanges within relationships can also be broadcast by other social network members and establish a certain reputation, which may be of influence on the willingness of others to help and success in the formation of new relationships. Reputations can be built by helping others, but also by withdrawing help in certain situations (see Wedekind & Milinski, 2003). Experimental research suggests that reputation is also a crucial explanation behind the occurrence of altruistic helping behaviour:
the exchange of resources without a context of reciprocity (Fehr & Fischbacher, 2003). Recent empirical research has shown that altruistic helping behaviour is indeed a separate mechanism from reciprocity, although the exact conditions under which both are applied still need to be clarified (Smaniotto, 2004).

2.2.3 Opportunity and proximity

In addition to reciprocity and trust, an opportunity is needed to complete transactions with social capital. In recent history, technological innovations have lowered the costs for the exchange of resources. Written correspondence, telephone, and more recently video, fax and internet communication have improved access to resources, especially information and some forms of emotional support and accompaniment, such as phone conversations and internet chat rooms (Wellman, 2002). With few exceptions (such as financial support by money transfers) access to instrumental help is not much enhanced by such innovations. For many forms of accompaniment and emotional support physical proximity is desired, while any form of physical support is exclusively possible in physical proximity. This means that for these purposes, in addition to the costs of relationship maintenance, *transaction costs* emerge: these consist of resources that have to be spent to enable exchanges.\(^\text{13}\) These costs then become a function of the geographical proximity of alters. As important, willing alters may live on the other side of the country, sometimes ‘a close neighbour is better than a distant cousin’.

Geographic mobility of ego and alters may have an important influence on social capital; migration tends to destroy social capital because of the diminished opportunities to maintain long-distance relationships. Moving disrupts the composition and structure of the social network, especially concerning the extra-familiar network (Coleman, 1988). Since for weaker relationships more frequent maintenance is needed, such ties are more likely to dissolve than stronger relationships, that have a more stable future, and can even be maintained over large distances (Van Busschbach, 1996).\(^\text{14}\) The perception of costs needed to overcome geographical distances in order to enable maintenance of relationships, of exchanges with social network members is culture- and country-specific, however. Travelling a couple of hours to meet someone is e.g. differently handled in the US in comparison to the Netherlands, where distances are small and public transport is more frequent.

The question is how important transaction costs are for the measurement of social capital. Measuring the (complex) resource- and alter-specific opportunities for exchange is only important if there could be grounds on which to expect these may potentially prevent the future mobilisation of resources. In many cases the costs of the actual exchange of help are quite low and not perceived as such, because the social capital transaction is a by-product of social interaction. Providing help is often pleasant in itself, and only

\(^{13}\)Spending resources on such transactions can also be perceived as efforts to maintain a social relationship, in which case both costs become indistinguishable: “The cheque’s on me, since you had to get here by train in the first place” is an example.

\(^{14}\)When ego often moves and establishes strong ties in geographically diverse areas, these ties may lead to information advantages usually associated with weak ties (see 2.1.3): in such cases, strong ties living in totally different contexts have access to different, non-overlapping sources of information and may therefore serve as ‘bridges’ (see Section 2.1.3).
2.3. USING SOCIAL CAPITAL

for a limited number of social capital transactions (when physical proximity is needed, see above) substantial efforts are required to get them organised. In addition, the help exchanged in social capital transactions is not often required immediately, or even on a very short-term notice.\textsuperscript{15} An opportunity to exchange resources can therefore often be created. In addition it can be assumed that in an interview situation, when asked whether they know someone with whom they may exchange resources, or who owns certain resources, respondents are less likely to mention alters with whom actual exchanges are only limitedly possible. Summarised, the operationalisation of geographical proximity and opportunity measures is only useful for some resources, and some specific cases. Therefore, elaborate opportunity measures will not be considered as corrections for measures of the availability of social capital in this study.

2.3 Using social capital

So far, it has been discussed how social capital may be created, and how relationships are involved in exchanges with social capital. In this section, the focus is on how and why individuals may choose to use social capital.

2.3.1 Individual goals

To get a better understanding of how social capital may be implemented in goal attainment and the consequences this may have for its measurement, it is useful to first understand how individuals make choices in selecting bundles of resources to solve problems.

Individual goals are systematically structured by social production function theory (SPF) (Lindenberg, 1990, 1996; Ormel, Steverink, Vonkorff, and Lindenberg, 1997), a socioeconomic theory which proceeds from the basis of rational choice theory. Its basic assumption is that individuals try to reach one ultimate goal, namely to maximise their psychological well-being or, less formally, their ‘happiness’. Given the constraints they are facing, they do so by setting certain intermediate goals according to the relative amounts of expected utility they attach to the attainment of each of these goals. An individual specification of these expected utilities is defined as a production function, which may change over time. The outcome of this function can be optimised by choosing a certain collection of instrumental goals, from which an actor will experience maximal psychological well-being.

SPF theory also proposes an hierarchical structure that orders goals according to a classification of universal needs. Psychological well-being, on top of this hierarchy, is subdivided into two distinct goals, formulated as physical well-being and social approval. Between these goals, hardly any substitution is possible. If one of them cannot be achieved, the production of psychological well-being is seriously impeded: for example, poor health cannot be compensated by social approval. A further specification of SPF theory states that physical well-being and social approval can each be achieved by endowments (see 2.1.4) and three intermediate goals. Physical well-being is attained by stimulation (exercise, mental stimulation), external comfort (a pleasant environment), and internal comfort

\textsuperscript{15}In addition, when help is needed on a short term notice, such as medical care in emergencies, the provider of help generally does not need to be a person with whom a personal relationship is maintained.
(the fulfilment of physiological needs). Social approval is attained by status (control over scarce resources), behavioral confirmation (approval for doing the right thing), and affection. Between each of these intermediate goals, limited substitution is possible, and each of these intermediate goals is characterised by diminishing marginal returns in the production of well-being.

These six intermediate goals themselves are attained by more concrete derivative actions, defined as instrumental activities, for which several kinds of resources or ‘production factors’ can be applied. On this most detailed level of SPF theory, unlimited substitution is possible between the instrumental activities, based on comparisons of relative costs between several resources that can be applied to achieve these goals. It is on this level of goal attainment that the relative advantages of the application of different kinds of resource collections can be considered.

Third, SPF theory states that within this goal classification, the achievement of psychological well-being can be sustained over a longer period of time because goals and resources can be substituted for one another to a certain extent. When one goal cannot be reached, attention can go to another goal: goal substitution. When a goal cannot be attained by the application of one resource, it may be attained by applying another via resource substitution. Applied to SPF theory, the individual choice to select resources from either personal or social capital is therefore connected to psychological well-being via resource substitution.

2.3.2 Using resources

To attain goals, individuals can choose from their collections of personal or social resources. The relative importance of these forms of capital in goal achievement is variable and depends on several factors, both at the micro- and macro level – some of these were already discussed in Section 1.3.4. Although for the attainment of many goals a mixture of personal and social resources is applied, some examples may be more illuminating.

An example of an instrumental action is when someone wants to have his bicycle repaired. The most direct solution to this problem is the application of personal resources, by doing the repair oneself. This not only requires skills, but also work space, and more importantly, time, which makes this option costly for many. A more obvious option is therefore an institutional solution to goal attainment (see Section 1.3.4), namely to bring the bike to a bicycle repair shop; this option often guarantees a satisfactory solution, and mainly requires money. A third option would be to apply social capital, and ask a friend to repair the bike. This involves searching for the right, goal-specific (human) social capital, since a network member is required who has some skills in bicycle repair, and finding an opportunity to exchange resources. Moreover, since this action introduces generalised reciprocity, it involves the creation of a future obligation to the network member who will eventually help – unless the help is the redemption of a ‘credit slip’ still held from a relationship-specific action in the past.

An example of an expressive action is when one is lonely and would like to meet others. In this case, there is no option to apply personal resources. Institutional solutions to this problem are also available, up to certain levels of tie strength: walking into a bar.
2.3. USING SOCIAL CAPITAL

discotheque or any other public facility to meet others can solve this problem. Recently, the arrival of easy access to internet has offered many additional opportunities to directly and also openly communicate with strangers (e.g. in chatrooms) – these however lack the aspects of communication highly valued with the physical presence of others. More problematic are institutional solutions when emotional support is required: relationships with best friends are usually not developed overnight, and are not directly available on the market. To comfortably talk to trustworthy others, using social capital (by calling a friend) may be the most ideal solution.

For the attainment of more complex goals mixtures of several types of resources may be employed at the same time. For example, when trying to find a job, ego may employ his financial resources (buy presentable clothes), his human resources (application skills), but may also mobilise his social resources (ask friends for advice or job opportunities). In this case, several resource collections work as complements in trying to accomplish the same goal.

The above simple examples (fixing bicycles, solving loneliness) illustrate that social capital may not be a solution to every problem. Using social resources has the specific advantage that their diversity is usually much larger than that of privately owned resources, so that social resources in general have a higher probability of containing the right resource (Lin, 2001a:44–45). In addition, a very basic advantage of social capital is that spending someone else’s resources is essentially cheaper – although this should be weighed against that fact that social relationships also have to be maintained, and perceptions of opportunism and the spread of a bad reputation have to be avoided.

Using privately owned resources also has advantages, the main of which is that they are almost always available: there are no search costs or transaction costs involved, they are independently controlled, and the use of personal resources also has the advantage that no debts are created. Furthermore, some problems are so specific that not even the diversity of resources embedded in one’s network may offer the solution (such as access to very specific knowledge). In other cases, the goal that is pursued may be too sensitive for the involvement of alters (such as goals of explicit medical or sexual nature), too dangerous (when the attainment of individual goals can harm others) or illegal (in which case secrecy is desired). Therefore, in many cases the mobilisation of personal resources or institutional solutions to goal attainment is therefore cheaper.

One of the relevant research questions for social capital investigations is therefore a specification of the conditions under which the application of social capital could have advantages over personal capital. Individual returns to social capital for individuals were specified by both Flap (1999, 2004) and Lin (1999a, 2001b), of which the overview in Lin (1999a) is used here to provide a typology.\textsuperscript{17}

\textsuperscript{17}It should be considered that all four categories of returns can also have outcomes that work against ego in goal attainment, and may therefore become ‘sour’ social capital (see Section 1.3.2): 1) Social capital also facilitates that others can make demands on ego’s personal resources; 2) Social capital can also lead to negative by-products, such as jealousy, aggression, and lead to hatred and violence; 3) References to external parties may also be negative and thwart individual goals in the form of gossip; 4) Social credentials can also work in a negative way: having dubious acquaintances does not help but hamper one’s reputation.
1. The most basic advantage of social capital is ‘facilitation’ (Lin, 1999b): it offers returns. Because social capital usually comprises a much larger resource collection than personally owned resources, the human, cultural, physical, political, and material resources of social network members are more likely to contain specific resources needed for individual goal attainment. Within the perspective of SPF theory, general social capital therefore also offers a lot more possibilities for substitution between resources, and can better sustain the attainment of personal well-being. Alternatively, social capital can make goal achievement or transactions less costly compared to other (institutionalised) ways of goal achievement (such as bicycle repair in the above example). Summarised, social capital gives access to opportunities.

2. For specific actions, social capital may provide opportunities for resources which are not available otherwise. For example getting trustworthy, independent advice may only be obtainable from close, trustworthy friends (e.g. see Völker & Flap, 1999). Social relationships reinforce identity and recognition because they are unique in the provision of resources needed to achieve social well-being (following SPF): love, attention and other reinforcements of either personal identity or group membership can only come from other actors.

3. Social ties may help in goal attainment through references to external parties and reputation enhancement, sometimes even without ego’s knowledge. By putting in a good word elsewhere, one actor can actively help the other by making others aware of his or her qualities, for instance when recommending someone for a job (see Section 2.1.1).

4. One of the important contributions of Bourdieu (1980) to social capital theory is the idea that one’s social network members may be perceived as social credentials. Knowing certain other people can work as a billboard stating ego’s social and cultural standing. Even unused social resources may therefore have symbolic utility (Lin, 2001a:44). Social capital then helps in being ego’s references, in addition to broadcasting a reputation.

2.3.3 Personal attributes

Ultimately, how individuals spend resources on their social network, and when they use and mobilise social capital in addition to personal resource collections, is not only a question of the nature of the goal, the presence of social relationships, which resources are at the other end of the tie, and the social environment the relationship is embedded in, but also of one’s personal skills, personality, and resources.

Since relationships are often more or less embedded within normative structures, alters have to be approached following complex rules, both in the creation and in the maintenance of social capital, and this requires human capital in the form of social skills. Lack of social skills may lead to misjudgements of situations, resulting in too large, too small, or wrong investments in relationships, which can have negative effects on the availability of social resources from existing relationships, and on the creation of new relationships.

Compared to institutional solutions for goal achievement, exchanges with social capital may involve more uncertainty about the outcomes. First, others may neglect their
2.3. USING SOCIAL CAPITAL

obligation for returns, while an individual has spent resources on them and owns ‘credit slips’ (Section 1.1.3), resulting in a negative balance. Looking backward, learning may lead to avoidance of generalised exchanges and diminished inclination to invest in relationships in general. Second, others may spend resources on ego, while there is no direct opportunity to return these favours. Ego is then left with the future obligation to incur others’ credit slips. While ego’s balance is then positive, the obligation to return the favours may still be evaluated as a negative consequence: people do not want to be in debt (Flap, 2004). This may lead to ‘fear of endebtment’, or a decreased inclination to initiate relationships or invest in them. In addition, individuals may have strong ideas of being self-supportive, expressed in both refusing to receive or give help. The measurement of such psychological characteristics may complement or explain measures of access to social capital, but is beyond the scope of this study.

Perhaps even more important to understand the role of social capital in personal goal attainment is its place amidst privately owned resources: these will define how useful social capital may be in goal attainment. For example, wealthy individuals will feel less need to mobilise social capital for very practical instrumental goals, solutions for which are also readily available on the traditional market. An additional effect of personal wealth (influence, resources) may be that others will be more interested in being social capital to ego. On the other hand, for individuals living in poverty social capital may be a very important source of help, while there is little to offer in return. Since access to social capital is often a result of investments done in the past, accompanying quantifications of personal resource collections may help explain existing inequality. In the empirical part of this volume, equivalent measures of personal resource collections will also be included for two measurement methods (discussed in Chapters 6 and 7).

In the current and previous chapter, the various dimensions of social capital were discussed mainly from a conceptual point of view. In a next stage of operationalisation, decisions are needed about how to count measurements of each of these dimensions, and how to construct social capital from them measures. This will be the main topic of Chapter 3.