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CHAPTER 26

Loneliness and Social Isolation

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Given that all people seek happiness and all people desire to be happy, the feelings of loneliness as registered among adolescents, young adults (Marcoen, Goossens, & Caes, 1987; Sippola & Bukowski, 1999), midlife and older adults (see among many others, Lopata, 1996) reveal a major problem in society. Although there is a general core to loneliness – the evaluation of a discrepancy between the desired and the achieved network of relationships as a negative experience – the forms of loneliness and their antecedents vary enormously according to personal and contextual determinants. Despite the fact that loneliness is not treated as a specific clinical entity (Mijuskovic, 1996), Russell, Peplau, and Cutrona (1980) presented evidence on the uniqueness of loneliness as a phenomenon in its own right. After being largely ignored by social scientists until the mid-20th century, an ever-increasing flow of work since the 1970s amply testifies to the utility of loneliness as an important concept. This chapter addresses the concepts of loneliness and social isolation using theoretical ideas and empirical evidence from

various sources and disciplines including psychology, sociology, and anthropology.

The Concepts of Loneliness and Social Isolation

Loneliness

The oldest publication about loneliness is *Über die Einsamkeit* (Zimmermann, 1785–1786). More recent efforts to conceptualize loneliness started in the 1950s with the publication “Loneliness” by Fromm Reichman (1959). Empirical research into loneliness was supported by the efforts of Perlman and Peplau (1981), who defined loneliness as “the unpleasant experience that occurs when a person’s network of social relations is deficient in some important way, either quantitatively or qualitatively” (p. 31). A second definition of loneliness, frequently used in European countries, is formulated as follows:

Loneliness is a situation experienced by the individual as one where there is an unpleasant or inadmissible lack of

(quality of) certain relationships. This includes situations, in which the number of existing relationships is smaller than is considered desirable or admissible, as well as situations where the intimacy one wishes for has not been realized. (De Jong Gierveld, 1987, p. 120)

Central to both definitions is that loneliness is a subjective and negative experience, and the outcome of a cognitive evaluation of the match between the quantity and quality of existing relationships and relationship standards. The opposite of loneliness is belongingness or embeddedness.

Social Isolation

Social isolation concerns the objective characteristics of a situation and refers to the absence of relationships with other people. The central question is this: To what extent is he or she alone? There is a continuum running from social isolation at the one end to social participation at the other. Persons with a very small number of meaningful ties are, by definition, socially isolated. Loneliness is not directly connected to objective social isolation; the association is of a more complex nature.

The Relationship Between Social Isolation and Loneliness

Loneliness is but one of the possible outcomes of the evaluation of a situation characterized by a small number of relationships. Socially isolated persons are not necessarily lonely, and lonely persons are not necessarily socially isolated in an objective sense. An individual who is well positioned in terms of objective social participation can occupy virtually any position on the subjective continuum. Where a person ends up on the subjective continuum depends on his or her relationship standards. Some people with a small number of social contacts might feel lonely; others might feel sufficiently embedded. An example of the latter situation is that of a person who prefers to be alone and opts for privacy as a means toward avoiding undesired social contacts and relationships. Acknowledging the importance of relationship standards, Perlman and Peplau

(1981) developed a cognitive or cognitive discrepancy theoretical approach to loneliness that focuses on the subjective evaluation of relationships in association with the personal standards for an optimal network of social relationships. The cognitive approach also considers the activities a person might undertake to restore the imbalance between the actual and the ideal situation. Thus, a person's position on the subjective continuum is affected not only by the type, nature and the saliency of the contacts missed, but also by the time perspective required to "solve" and upgrade problematic relationships, and the capacities to change the situation.

Types of Loneliness

Several components of loneliness can be distinguished. Zimmerman (1785/1786) differentiated between a positive and a negative type of loneliness. The positive type of loneliness is related to situations such as the voluntary withdrawal from the daily hassles of life and is oriented toward higher goals: reflection, meditation, and communication with God. Nowadays, the positive type of loneliness is more frequently referred to by a separate concept: privacy. Privacy is voluntary; it concerns a freely chosen situation of (temporary) absence of contacts with other people. The negative type of loneliness is related to an unpleasant or inadmissible lack of personal relationships and contacts with important others, as formulated in the definitions given in this chapter. This is the concept of loneliness that is nowadays used in theories and research. Moreover, it is the type of loneliness that best fits the everyday concept of loneliness.

Weiss (1973) differentiated between *emotional loneliness*, stemming from the absence of an intimate figure or a close emotional attachment (a partner, a best friend), and *social loneliness* stemming from the absence of a broader group of contacts, or an engaging social network (friends, colleagues, and people in the neighborhood). Emotional loneliness arises when a partner relationship dissolves through widowhood or divorce and

is characterized by intense feelings of emptiness, abandonment, and forlornness. This type of loneliness is only solvable by starting a new intimate relationship. Social support from family and friends cannot compensate the loss of the attachment figure (Stroebe, Stroebe, Abakoumkin, & Schut, 1996). The social type of loneliness is related to the absence of a wider network of friends with common interests. According to Weiss (1973), social loneliness is frequently reported by young homemakers, who have moved to an area where they are newcomers. Their husbands, however supportive and intimate, cannot fill the gap that is caused by the absence of a group of friends and others with whom to socialize. The distinction between social and emotional loneliness has again been gaining attention. In recent years, researchers have used the two types to better understand the determinants and expressions of loneliness. Both the De Jong Gierveld loneliness scale (De Jong Gierveld & Van Tilburg, 1999a, 1999b; Dykstra & De Jong Gierveld, 2004; Van Baarsen, Sniijders, Smit, & Van Duijn, 2001) and the Social and Emotional Loneliness Scale for Adults (SELSA); (DiTommaso & Spinner, 1993; Ernst & Cacioppo, 1999) have proved to be valid and reliable measuring instruments for emotional and social loneliness (see the next section for additional information).

Measuring Instruments

Loneliness has a negative connotation. Lonely people carry a social stigma. For those reasons it is embarrassing to talk about feelings of loneliness, in particular for men (Borys & Perlman, 1985), and people with deficiencies in their relationships do not always admit to being lonely. The use of direct questions including the words "lonely" or "loneliness" to investigate loneliness is likely to result in underreporting. Some loneliness scales consist of items excluding any reference to loneliness, whereas other scales include one or more such items. In discussing different measuring instruments, Shaver and Brennan (1991) argued that the exclusion of explicit references to loneliness gives rise to disagreements on

content validity. In their view, it is unclear whether one is measuring relationship satisfaction or loneliness. We disagree: Many instruments are validated by showing they correlate with self-reports of loneliness. We describe two loneliness scales that have no explicit references to loneliness and have been used in many research projects (Pinquart & Sörensen, 2001b).

The UCLA Loneliness Scale (Russell, Peplau, & Cutrona, 1980) has been translated into several languages. In the original version, all the items were worded in a negative or "lonely" direction. Because of concerns about how the negative wording of the items might affect scores (i.e., response sets), a revised version of the scale was developed that included items worded in a lonely and a nonlonely direction. The wording of the items and the response format have been simplified to facilitate administration of the measure to less educated populations (Russell, 1996).

De Jong Gierveld and colleagues conducted qualitative research as the first step in developing a loneliness scale. The 1985 version (De Jong Gierveld & Kamphuis, 1985; De Jong Gierveld & Van Tilburg, 1999a) consists of 11 items. Five items are positively phrased, and six are negatively phrased. The reliability and homogeneity of the scale have proven to be satisfactory in different Dutch samples adopting different modes of data collection (Van Tilburg & De Leeuw, 1991). Using the scale in self-administered questionnaires results in higher scale means than if the scale is used in face-to-face or telephone interviews (De Leeuw, 1992). This finding is in line with Sudman and Bradburn's (1974) observation that, compared with interviews, the more anonymous the setting in which self-administered surveys are completed, the more the results show self-disclosure and reduce the tendency of respondents to present themselves in a favorable light. The De Jong Gierveld scale was not developed to assess types of loneliness but rather to measure the severity of feelings of loneliness. Researchers can choose to use the scale as a one-dimensional measure. As a whole, the scale is moderately, yet sufficiently

homogeneous. The items were, however, developed with Weiss's (1973) distinction between social and emotional loneliness in mind. For that reason, researchers can choose to use two subscales (one for emotional and one for social loneliness) that have moderate intercorrelations.

Conceptual Approaches to Understanding Loneliness

Several theoretical approaches have been used for analyzing loneliness (Derlega & Margulis, 1982; Perlman & Peplau, 1981). Weiss (1974), a leading proponent of the attachment perspective, suggested that there are different provisions of relationships (e.g., attachment, sense of worth, etc.), each associated with a specific type of relationships. He contended that as long as the provider is trustworthy, we can obtain guidance and assistance, often needed during stressful situations, and in alleviating loneliness. The main approaches to loneliness focus on individual-level characteristics that predispose people to become lonely or to persist in being lonely (Marangoni & Ickes, 1989; Rokach & Brock, 1996). In our view, greater insight into loneliness will be gained by bringing together individual level characteristics and contextual characteristics. Examples of the latter are sociocultural factors and sociostructural characteristics of the individual's environment. In this section, we start with a description of the individual level factors contributing to loneliness. We continue with the sociocultural factors that contribute to loneliness, more specifically, the social standards. Finally, the sociostructural factors modulating the risks of loneliness are addressed, particularly the socioeconomic characteristics of the contextual setting.

The Cognitive Approach to Loneliness (Individual Level)

Thanks to the efforts of Peplau and Perlman (1982) who, at the end of the 1970s, brought together loneliness researchers from the United States, Canada, and Europe, mea-

suring instruments and research into the determinants of loneliness became more or less "standardized." From that point in time, loneliness research in different regions of the world has been largely comparable in terms of design and theoretical modeling. Drawing on the *cognitive approach* to loneliness (Dykstra & De Jong Gierveld, 1994; Perlman & Peplau, 1981), analyses focus on subjective experiences and on cognitive processes that mediate the association between relationship characteristics and the experience of loneliness. A shortage of achieved as compared with desired relationships does not directly and inevitably lead to loneliness but is first perceived and evaluated. Social comparisons are key to this process. For example, social comparison may affect how large and important a social deficit is believed to be (Perlman & Peplau, 1981).

Researchers adopting the cognitive approach typically include the following characteristics in their models: (a) descriptive characteristics of the social network (intimate relationships as well as the broader group of acquaintances, colleagues, neighbors, and extended kin); (b) relationship standards, (c) personality characteristics (e.g., social skills, self-esteem, shyness, anxiety, introversion); and (d) background characteristics (e.g., gender and health). First, we address various components of the network of social relationships.

MARITAL AND PARTNER STATUS

From Durkheim onward, marriage has been seen as an avenue toward alleviating social isolation and loneliness. Research has repeatedly shown the protective effect of an intimate partner bond on the physical, financial and mental well-being of both men and women (Waite & Gallagher, 2000). Although, in Western and Northern Europe "new" partnerships such as consensual unions and "living apart and together" relationships are becoming increasingly popular, it is the content and not the form of the partner bond that matters (Coleman, Ganong, & Fine, 2000; De Jong Gierveld, 2004; Dykstra, 2004). A partner does not

always provide protection against loneliness. Persons with a partner who is not their most supportive network member tend to be very lonely (Van Tilburg, 1988). Generally speaking, however, persons with a partner bond tend to be better protected from loneliness than persons without a partner bond (Dannenbeck, 1995; Wenger, Davies, Shahtahmasebi, & Scott, 1996).

Several mechanisms can explain why the absence of a partner in the household makes people more vulnerable to loneliness. First, a key structuring influence in the social network is missing: The size and broader composition of the network are strongly linked with the presence of a partner (Pinquart & Sörensen, 2001a). Persons living alone have smaller networks than those living with a partner. Second, when help is needed, the persons living alone lack in-house support and, by definition, have to orient themselves toward others outside the household. Third, living alone is, in many cases, the result of the dissolution of a partner relationship. Those who remain alone after the death of the partner are specifically at risk of loneliness, and the effects on the intensity of loneliness are recognizable over a long period of time (Lopata, 1996; Stevens, 1989). The effects of divorce on loneliness are also known to continue over long periods of time: Divorce in middle adulthood continues to affect feelings of loneliness even at older ages (Dykstra & De Jong Gierveld, 2004). Remarriage, unmarried cohabitation, and dating help to resolve loneliness to a certain extent. Findings reported by Peters and Liefbroer (1997) show that previous disruptions of partnerships have an effect on loneliness over and above current partner status.

KIN RELATIONSHIPS

Involvement in relationships other than a partner can also help to prevent or alleviate loneliness. Hagestad (1981, 1998) described the socially integrative role of the family, arguing that communication and historical conversations across generations help maintain continuity across life phases and strengthen a sense of belonging. The central-

ity of the parent-child bond in people's lives is undisputed (Rossi & Rossi, 1990). Adult children are an important source of companionship, closeness, and sharing, particularly for those who live alone. Dykstra (1993) and Pinquart (2003) have shown, for example, that contacts with children are more likely to reduce loneliness among formerly married than among married older adults. Divorce often impairs the relationship between parents and children, especially in the case of fathers (Kaufman & Uhlenberg, 1998; Kitson & Morgan, 1990). The low level of contact with adult children is the reason divorced fathers tend to be lonelier than divorced mothers (Pinquart, 2003). Siblings are special in many ways (Bedford, 1989; Cicirelli, 1995; Connidis, 1989; Gold, 1987): There is the common blood tie, the shared history of growing up together and of having the same background. The loss of a sibling has been found to contribute to loneliness among older persons (Gold, 1987). Siblings serve a particularly important function in alleviating the loneliness of those who lack the intimate attachment of a partner and have no children (Pinquart, 2003).

NONKIN RELATIONSHIPS

The importance of friends for psychological well-being is well documented (Blieszner & Adams, 1992; Rawlins, 1995): the joy of spending time together, the compassion evident in keeping up with personal ups and downs, and the exchange of ideas. Relationships with friends, colleagues, and other nonkin relationships serve to connect people to circles outside their immediate family. The benefits of belonging to a set of interlocking networks can lower the risks of social loneliness (Connidis & Davies, 1990; Wagner, Schütze, & Lang, 1999). Moreover, best friends can step in and function as confidants and in doing so help alleviate emotional loneliness, in particular, for never partnered or childless adults (Dykstra, 1993; Pinquart, 2003). Involvement in formal organizations is another source of sociability: Church attendance, activities in voluntary associations, and volunteer work

bring people together and are a means of forming attachments (Pilusuk & Minkler, 1980) and in this way help to prevent or combat loneliness (Van Tilburg, De Jong Gierveld, Lecchini, & Marsiglia, 1998).

SIZE AND COMPOSITION OF THE NETWORK

Generally speaking, as the number of relationships in the social network increases and as the amount of emotional and social support exchanged increases, the intensity of loneliness decreases (Van Tilburg, 1988). The four closest ties in a person's network provide the greatest degree of protection against loneliness. The protection provided by additional relationships is marginal (Van Tilburg, 1990). Diversity across relationship types also serves to protect against loneliness. People with networks composed of both strong and weak ties are less prone to loneliness than people with strong ties only (Van Tilburg, 1990). Moreover, research (Dykstra, 1990; Silverstein & Chen, 1996) has shown that people with networks that consist primarily or entirely of kin ties are more vulnerable to loneliness than people with more heterogeneous networks. Those who are dependent on family members for social contacts because they lack alternatives tend to have the highest levels of loneliness.

RELATIONSHIPS STANDARDS

The cognitive approach to loneliness emphasizes that people evaluate whether their relationships measure up to their standards. Standards might be what a person aims for in relationships (e.g., a certain degree of intimacy, of frequency of contacts). Standards might also be desires to have specific types of relationships (e.g., an intimate partner, best friends, supportive colleagues). Standards develop over the course of life. Childhood experiences shape needs and desires for attachment (Bowlby, 1974), which are altered with new relationship experiences. Standards regarding partner relationships are a case in point. Research has shown that over the course of time, men and women who have lost their partner by death start downplaying the advantages of having a

partner and start upgrading the advantages of being single (Dykstra & De Jong Gierveld, 1994; Stevens, 1989). In doing so, they free the way for other relationships. The less importance attached to having a partner, the less lonely the widowed were found to be.

PERSONALITY CHARACTERISTICS

People with poor social skills and psychological resources are likely to experience difficulty developing and maintaining relationships, and for that reason might feel lonely (Windle & Woods, 2004). Similarly, people with a neurotic or anxious personality might harbor unrealistic relationship standards, and their unmet social needs might give rise to feelings of loneliness (cf. Jones & Carver, 1991). Feeling socially uncomfortable, fear of intimacy, being easily intimidated by others, being unable to communicate adequately to others and developmental deficits such as childhood neglect and abandonment are reported by lonely people as the main causes of their feelings of loneliness (Rokach & Brock, 1996). Characteristics such as low self-esteem, shyness and low assertiveness can predispose people to loneliness and might also make it more difficult to recover from loneliness (Peplau & Perlman, 1982).

GENDER

Chodorow (1978) described the gender-specific socialization of men and women, arguing that men and women differ in the values they ascribe to different types of relationships. Men socialized to be emotionally independent prefer undemanding relationships and tend to rely on their wives and partners for social and emotional support. Women are socialized to have more complex affective needs in which an exclusive relationship to a man is not enough. Results from a meta-analysis (Pinquart & Sörensen, 2001a) of 102 studies that investigated gender differences in loneliness show that women report significantly higher levels of loneliness than men. This is more pronounced in studies in which loneliness is measured with single-item indicators than for studies using higher quality

loneliness measuring instruments. This difference might be related to men's greater reluctance to report loneliness in response to direct questions (see the measurement section of this chapter; and Borys & Perlman, 1985). In multivariate analyses controlling for marital status, partner history, socioeconomic factors, and the functioning of the social network, the effect of gender on loneliness decreases (Baltes, Freund, & Horgas, 1999) and becomes insignificant for those in first marriages (Dykstra, 2004).

HEALTH

Loneliness is associated with a variety of measures of physical health. Those who are in poor health, whether this is measured objectively or subjectively, tend to report higher levels of loneliness (Havens, & Hall, 2001; Kramer, Kapteyn, Kuik, & Deeg, 2002; Mullins, Hall Elston, & Gutkowski, 1996; Penninx et al., 1999; Steverink, Westerhof, Bode, & Dittmann-Kohli, 2001). The causal mechanisms underlying the association between loneliness and health are not well understood, although new lines of research on the psychophysiology mechanisms and other pathways connecting loneliness and health outcomes (see Cacioppo et al., 2002; Hawkey & Cacioppo, 2003; Loving, Heffner, & Kiecolt-Glaser, this volume). Does Poor health lead to loneliness via difficulties in maintaining social relationships? Or does poor health lead to an increase in support and a decrease in loneliness? Penninx et al. (1999) and Van Tilburg and Broese van Groenou (2002) showed that investing in relationships by giving support might pay off in times of need: Poor health mobilizes network members and increases support giving. Does loneliness produce Poor health? Could they mutually influence each other? Perhaps there is no direct causation but rather an indirect relationship through a third factor. One possible reason for the loneliness–health association involves preventive health behaviors (see Cacioppo, Hawkey, & Bernston, 2003). Lonely individuals are less likely to engage in behaviors such as exercise, remember-

ing to take medications or see their doctors, good nutrition, and relaxation (Aartsen, 2003; Mahon, Yarcheski, & Yarcheski, 2001; Pérodeau & du-Fort, 2000).

Loneliness in Context

Empirical studies have focused on individual-level determinants of loneliness. Much less attention has been paid to the ways in which social isolation and loneliness are patterned socially. A relatively new area of research concerns (a) the societal patterning of standards for evaluating one's social network of relationships and (b) the societal patterning of social and economic resources contributing to social integration. These contextual-level factors affect the intensity of loneliness either indirectly via the composition and size of the individual's network of relationships or directly via differences in the evaluation of a given context. Differences between neighborhoods in mutual concern for the other's well-being are an example of societal patterning of resources at the contextual level. As Thomése, Van Tilburg, and Knipscheer (2003) showed, as mutual concern for the other's well-being and the shared feeling of community embeddedness increase, the risk of loneliness at the individual level decreases.

In this section, we first address the outcomes of international comparative research into the relationship on socially differentiated standards and loneliness. Next we discuss theoretical ideas on contextual differences in social and economic resources and loneliness.

NORMATIVE CLIMATE

People's relationship standards are shaped by the normative climate in which they find themselves. The normative climate in and of itself can be conducive to loneliness. Norms and values affect people's ideas about the optimal size of the network, and the obligations and duties of family members.

Johnson and Mullins (1987) suggested that loneliness is high in collectivist-oriented communities where sensitivity to social

exclusion is stronger than in individualistic communities. This hypothesis has been tested in a number of studies on differences between North America and Europe. Rokach, Orzeck, Cripps, Lackovic-Grgin, and Penezic (2001) compared Canadians and Croatians (from central-south Europe) assuming that North American culture poses a lower loneliness risk than European culture because of its emphasis on individual achievement and impersonal relationships. However, their findings revealed that Canadians experienced more loneliness than Croatians. Van Tilburg, Havens, and De Jong Gierveld (2004) observed, in line with Johnson and Mullins's hypothesis, that the likelihood of being emotionally lonely among older adults without a partner and of being socially lonely among all older adults in the study was highest in Tuscany, Italy, followed by the Netherlands and Manitoba, Canada. Swedish centenarians were more often lonely, in contrast to centenarians in Georgia, United States, who seldom reported being lonely (Martin, Hagberg, & Poon, 1997). Stack's (1998) analysis of World Values Surveys data showed that adults in Italy and Japan reported more loneliness than adults in the United States and Canada, whereas adults in a number of Western and Northern European countries as well as in Australia reported less loneliness than in the United States and Canada (after controlling for several individual characteristics such as marital and parental status, self-reported health, socioeconomic status, education, and gender). The assumed dichotomy of two types of cultures might be too simple. Differences within a cultural system are overlooked. Considerable variability exists *within* North America, for example, as illustrated by research among immigrants and people born and raised in North America where the experience of loneliness differed by country of origin and cultural background (Goodwin, Cook, & Yung, 2001; Rokach & Sharma, 1996). No one has yet offered a comprehensive explanation to account for the range of cultural differences that have been found.

A set of studies has examined differences in older adult loneliness across Europe

(İmamoğlu, Küller, İmamoğlu, & Küller, 1993; Jylhä & Jokela, 1990). Findings showed that although living alone became progressively less common from Northern Europe to Southern Europe, experiences of loneliness progressively increased. According to the authors the crossnational differences are attributable to differences in normative climate. Living alone generally gives rise to loneliness, but this is the more so in countries where older adults without a partner are expected to live with their families (e.g., Greece, Italy) and the less so in countries where older adults without a partner prefer to live alone (e.g., Finland).

In general, the problems of lonely people cannot be regarded as individual failures only. Characteristics of the societal context, such as prevailing standards concerning matrimony and the nuclear family, the emphasis on individual fulfillment, and high expectations about romantic relationships might also be considered loneliness-provoking factors, especially so for those living on their own and parents without parents (Ernst & Cacioppo, 1999).

SOCIOECONOMIC CONTEXT

Perlman and Peplau (1981) argued that in any setting, factors that increase the frequency of interaction and foster group cohesiveness are likely to affect the incidence of loneliness. In our view, the dimension of socioeconomic equality versus inequality is among these factors. Unfortunately empirical research connecting socioeconomic inequality (a concept at the contextual level) to individual loneliness is virtually nonexistent. Phillipson (2004) has started a program of research in the United Kingdom that is oriented toward investigating the consequences of the deepening social and economic inequality and the socially deprived circumstances of groups of impoverished inhabitants of urban neighborhoods compared with the affluent subgroups, taking loneliness as the dependent variable (Phillipson, 2004). Research by Scharf, Phillipson, and Smith (2004) in some of the most deprived neighborhoods of the United Kingdom indicated significant

numbers of people prone to social exclusion (e.g., from social relations, material resources, and basic services) and experiencing neighborhood exclusion. The risk of being affected by multiple forms of social exclusion and loneliness was greatest for those belonging to minority ethnic groups and the age group of 75 years and over.

In our view, the links between socioeconomic inequality and loneliness are a research area worth pursuing. In doing so, one can learn from research that investigates the relationship between socioeconomic inequalities and indicators of individuals' well-being, such as health, morbidity, and mortality.

O'Rand (2001) postulated that across industrialized countries, major structural and demographic changes have generated persistent social inequalities and shifts away from social welfare policies toward market-centered strategies for income and health maintenance. In her view, the growing economic and social inequalities within populations form the fundamental social condition that yields negative outcomes in health and well-being. O'Rand's concept of inequality consists of economic, social, and psychosocial components and operates multilevel: across societal planes, the state, and the neighborhood to the individual. The causal mechanism by which inequality affects well-being operates through people's perceptions of societal fairness more than directly on its own. O'Rand distinguished, on one hand, a direct pathway connecting inequality and persons' well-being via individuals' socioeconomic resources. On the other hand, there is an indirect pathway by which contextual level inequality and atomization at the community level reduce trust and increase persons' perceptions of relative deprivation, leading to negative outcomes.

Within the same paradigm, Wilkinson (1994) investigated the relationship between societal characteristics – gross national product per capita and differences in relative income – and life expectancy. He concluded that the Organization for Economic Co-operation and Development countries with the longest life expectancy are not the

wealthiest but those with the smallest spread of incomes and the smallest proportion of the population in relative poverty. Wilkinson (1994) postulated that the link between socioeconomic inequalities and health or mortality is mediated by *cognitive processes* of social comparison, feelings of deprivation and disadvantage that can lead to depression. Kawachi, Kennedy, Lochner, and Prothow-Stith (1997) provided evidence for the link between social inequality at the macro-level and perceived fairness and distrust at the microlevel. Using General Social Survey data from the United States, they found an inverse relationship between the degree of income inequality at the state level and the perceived lack of fairness and mistrust. The perceived lack of fairness was operationalized with the item, "Most people would try to take advantage of you if they got a chance," and social mistrust with the item, "Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?" The concept of trust is also central in Ross, Mirowsky, and Pribesh's (2001) work on neighborhood disadvantage and powerlessness. Neighborhood disadvantage was measured as the sum of the percentage of households with incomes below the federal poverty line and the percentage of female-headed households with children. Results indicated that when controlled for individual disadvantage, residents of disadvantaged neighborhoods experienced lower levels of trust. Mistrust and absence of faith in other people promoted and reinforced a sense of powerlessness.

The promise of the previously described theoretical ideas for research into loneliness is that contextual and individual determinants might be integrated under an overarching cognitive theory, connecting social and economic inequality to the cognitive processes of persons' perceptions of societal fairness and trust, which in turn affect people's vulnerability to social isolation and loneliness. In the near future, the analyses and description of the core mechanisms of the overarching cognitive theory needs attention. Until now, this type of multilevel

research is scarce. Moreover, some of the central theoretical concepts need better definitions and valid and reliable measuring instruments. We need to work toward a research and sample design that enables multilevel research into social isolation and loneliness.

Coping and Interventions

Some individuals recover from loneliness by using their own strategies, or by letting time do the healing. Others require outside professional help. The most obvious approach is to help people develop satisfying personal relationships (Rook, 1984). This can be done by improving how they interact with others through social skills training or forms of psychotherapy aimed at changing dysfunctional interpersonal dispositions (e.g., fear of rejection). It can also be done by improving opportunities for interactions through programs aimed at removing barriers for social interaction (e.g., providing transportation) or at bringing people together (e.g., discussion groups). Pilusuk and Minkler (1980) emphasized the importance of developing programs that have opportunities for so-called unintentional network building, that is, the development of friendships is a by-product of the shared activity, not the explicit purpose. Nevertheless, programs with an explicit focus on improving personal relationships have proven to be effective. In the Netherlands, the Friendship Enrichment Program (FEP) in which participants are taught how to nourish friendships and go about making friends has been successful in alleviating loneliness (Stevens, 2001; Stevens & Van Tilburg, 2000). The beneficial effects of the FEP might be limited to specific groups, however. The authors noted that the participants were self-selected and wanted to learn about friendship. The FEP might work best for individuals who actively want to become less lonely. Moreover, given that only women participated in the evaluation study, the question of whether men will also benefit from the FEP cannot be answered.

Interventions aimed at improving relationships might not always be feasible or appropriate, as in the case of people who have unrealistically demanding or excessive needs for support. Such people are more likely to benefit from cognitive interventions aimed at modifying relationship expectations. Individuals with severely limited physical mobility are likely to benefit from interventions aimed at increasing their repertoire of rewarding solitary activities. Rook (1984) pointed out that although encouraging lonely individuals to develop enjoyable solitary activities seems like a last resort, solitary activities relieve people from dependence on others and thus may increase their sense of personal control.

In a recent review of interventions targeting social isolation among the elderly, Findlay (2003) lamented the lack of evidence showing that they work. Few evaluative studies on the effectiveness of loneliness interventions have been carried out. The few studies that have been done are flawed by weak methodologies. Findlay concluded that future programs aimed at reducing social isolation should have evaluation built into them at inception. This advice is heeded in a program of research that is currently being carried out under the auspices of the Sluyterman van Loo Foundation in the Netherlands. This foundation commissioned 17 interventions aimed at reducing loneliness among the elderly under the condition that their effectiveness would be evaluated by the three authors of this chapter together with Tineke Fokkema of the Netherlands Interdisciplinary Demographic Institute. The interventions are diverse (e.g., home visits by volunteers, social program for nursing home residents, educational program for the hearing impaired, Internet usage). Under our supervision, the collection of data has been standardized as far as possible. Key variables such as loneliness, marital history, social network characteristics, relationship standards, and health and personality characteristics are measured the same way in each of the projects. All but two of the interventions are randomized control trials. A first report is scheduled for the end of 2005.

An Evaluative Conclusion

It is broadly agreed that loneliness is not directly connected to social isolation, that is, the absence of relationships with other people. Loneliness is defined as the negative outcome of a cognitive evaluation of a discrepancy between (the quality and quantity of) existing relationships and relationship standards. An increasing flow of work from disciplines such as psychology, sociology, and anthropology has broadened the understanding of the mechanisms behind the onset and continuation of loneliness. In doing so, next to background variables such as age, gender, and health, characteristics of the social network of relationships, personality characteristics, and relationship standards have been addressed. The socially isolating effects of deprivations brought by social and economic circumstances at the community or country level require further exploration. Future research should address the ways in which people's evaluations of their relationship networks are affected by the normative context in which they find themselves.

References

- Aartsen, M. (2003). *On the interrelationships between cognitive and social functioning in older age*. Unpublished doctoral dissertation, Vrije Universiteit, Amsterdam.
- Baltes, M. M., Freund, A. M., & Horgas, A. L. (1999). Men and women in the Berlin Aging Study. In P. B. Baltes & K. U. Mayer (Eds.), *The Berlin Aging Study; aging from 70 to 100* (pp. 259-281). Cambridge, England: Cambridge University Press.
- Bedford, V. H. (1989). Understanding the value of siblings in old age: A proposed model. *American Behavioral Scientist*, 33, 33-44.
- Blieszner, R., & Adams, R. (1992). *Adult friendship*. Newbury Park, CA: Sage.
- Borys, S., & Perlman, D. (1985). Gender differences in loneliness. *Personality and Social Psychology Bulletin*, 11, 63-74.
- Bowlby, J. (1974). *Attachment and loss Attachment*: Vol. 1. London: Hogart Press and the Institute of Psycho-Analysis.
- Cacioppo, J. T., Hawkley, L. C., & Bernston, G. G. (2003). The anatomy of loneliness. *Current Directions in Psychological Science*, 12, 71-74.
- Cacioppo, J. T., Hawkley, L. C., Crawford, E., Ernst, J. M., Burleson, M. H., Kowalewski, R. B., et al. (2002). Loneliness and health: Potential mechanisms. *Psychosomatic Medicine*, 64, 407-417.
- Chodorow, N. (1978). *The reproduction of mothering: Psychoanalysis and the sociology of gender*. Berkeley: University of California Press.
- Cicirelli, V. G. (1995). *Sibling relationships across the life span*. New York: Plenum Press.
- Coleman, M., Ganong, L., & Fine, M. (2000). Reinvestigating remarriage: Another decade of progress. *Journal of Marriage and the Family*, 62, 1288-1307.
- Connidis, I. A. (1989). Siblings as friends in later life. *American Behavioral Scientist*, 33, 81-93.
- Connidis, I. A., & Davies, L. (1990). Confidants and companions in later life: The place of family and friends. *Journal of Gerontology: Social Science*, 45, 141-149.
- Dannenbeck, C. (1995). Im alter einsam? Zur strukturveränderung sozialer beziehungen im alter [Lonely in later life? Changing social relationships in later life]. In H. Bertram (Ed.), *Das Individuum und seine familie* (pp. 125-156). Opladen, Germany: Leske + Budrich.
- De Jong Gierveld, J. (1987). Developing and testing a model of loneliness. *Journal of Personality and Social Psychology*, 53, 119-128.
- De Jong Gierveld, J. (2004). Remarriage, unmarried cohabitation, living apart together: Partner relationships following bereavement or divorce. *Journal of Marriage and Family*, 66, 236-243.
- De Jong Gierveld, J., & Kamphuis, F. H. (1985). The development of a Rasch-type loneliness-scale. *Applied Psychological Measurement*, 9, 289-299.
- De Jong Gierveld, J., & Van Tilburg, T. G. (1999a). *Manual of the loneliness scale*. Vrije Universiteit Amsterdam, Department of Social Research Methodology.
- De Jong Gierveld, J., & Van Tilburg, T. (1999b). Living arrangements of older adults in the Netherlands and Italy: Coresidence values and behavior and their consequences for loneliness. *Journal of Cross-Cultural Gerontology*, 14, 1-24.
- De Leeuw, E. D. (1992). *Data quality in mail, telephone, and face-to-face surveys*. Unpublished

- doctoral dissertation, Vrije Universiteit Amsterdam.
- Derlega, V. J., & Margulis, S. T. (1982). Why loneliness occurs: The interrelationship of social-psychological and privacy concepts. In L. A. Peplau & D. Perlman (Eds.), *Loneliness. A sourcebook of current theory, research and therapy* (pp. 152–165). New York: Wiley.
- DiTommaso, E., & Spinner, B. (1993). The development and initial validation of the social and emotional loneliness scale for adults (SELSA). *Personality and Individual Differences*, 14, 127–134.
- Dykstra, P. A. (1990). *Next of non-kin. The importance of primary relationships for older adults' well-being*. Amsterdam/Lisse, the Netherlands: Swets & Zeitlinger.
- Dykstra, P. A. (1993). The differential availability of relationships and the provision and effectiveness of support to older adults. *Journal of Social and Personal Relationships*, 10, 355–370.
- Dykstra, P. A. (2004). Diversity in partnership histories: Implications for older adults' social integration. In C. Phillipson, G. Allan, & D. Morgan (Eds.), *Social networks and social exclusion: Sociological and policy issues* (pp. 117–141). London: Ashgate.
- Dykstra, P. A., & De Jong Gierveld, J. (1994). The theory of mental incongruity, with a specific application to loneliness among widowed men and women. In R. Erber & R. Gilmour (Eds.), *Theoretical frameworks for personal relationships* (pp. 235–259). Hillsdale NJ: Erlbaum.
- Dykstra, P. A., & De Jong Gierveld, J. (2004). Gender and marital-history differences in social and emotional loneliness among Dutch older adults. *Canadian Journal on Aging*, 23, 141–155.
- Ernst, J., & Cacioppo, J. T. (1999). Lonely hearts: Psychological perspectives on loneliness. *Applied and Preventive Psychology*, 8, 1–22.
- Findlay, R. A. (2003). Interventions to reduce social isolation amongst older people: Where is the evidence? *Ageing and Society*, 23, 647–658.
- Fromm Reichmann, F. (1959). Loneliness. *Psychiatry*, 22, 1–15.
- Gold, D. T. (1987). Siblings in old age: Something special. *Canadian Journal on Aging*, 6, 199–215.
- Goodwin, R., Cook, O., & Yung, Y. (2001). Loneliness and life satisfaction among three cultural groups. *Personal Relationships*, 8, 225–230.
- Hagestad, G. O. (1981). Problems and promises in the social psychology of intergenerational relations. In E. Shanas (Ed.), *Ageing: Stability and change in the family* (pp. 11–46). New York: Academic Press.
- Hagestad, G. (1998, October 1). *Towards a society for all ages: New thinking, new language, new conversations*. Keynote address at the Launch of the International Year of Older Persons 1999, United Nations, New York.
- Havens, B., & Hall, M. (2001). Social isolation, loneliness, and the health of older adults. *Indian Journal of Gerontology*, 14, 144–153.
- Hawkey, L. C., & Cacioppo, J. T. (2003). Loneliness and pathways to disease. *Brain, Behavior, and Immunity*, 17, S98–S105.
- İmamoğlu, E. O., Küller, R., İmamoğlu, V., & Küller, M. (1993). The social psychological worlds of Swedes and Turks in and around retirement. *Journal of Cross-Cultural Psychology*, 24, 26–41.
- Johnson, D. P., & Mullins, L. C. (1987). Growing old and lonely in different societies: Toward a comparative perspective. *Journal of Cross-Cultural Gerontology*, 2, 257–275.
- Jones, W. H., & Carver, M. D. (1991). Adjustment and coping implications of loneliness. In C. R. Snyder & D. R. Forsyth (Eds.), *Handbook of social and clinical psychology: The health perspective* (pp. 395–415). New York: Pergamon Press.
- Jylhä, M., & Jokela, J. (1990). Individual experiences as cultural: A cross-cultural study on loneliness among the elderly. *Ageing and Society*, 10, 295–315.
- Kaufman, G., & Uhlenberg, P. (1998). Effects of life course transitions on the quality of relationships between adult children and their parents. *Journal of Marriage and Family*, 60, 924–938.
- Kawachi, I., Kennedy, B. P., Lochner, K., & Prothrow-Stith, D. (1997). Social capital, income inequality and mortality. *American Journal of Public Health*, 87, 1491–1498.
- Kitson, G. C., & Morgan, L. A. (1990). The multiple consequences of divorce: A decade review. *Journal of Marriage and Family*, 52, 913–924.
- Kramer, S. E., Kapteyn, T. S., Kuik, D. J., & Deeg, D. (2002). The association of hearing impairment and chronic diseases with psychosocial health status in older age. *Journal of Aging and Health*, 14, 122–137.
- Lopata, H. Z. (1996). *Current widowhood: Myths and realities*. Thousand Oaks, CA: Sage.
- Mahon, N., Yarcheski, A., & Yarcheski, T.-J. (2001). Mental health variables and positive

- health practices in early adolescents. *Psychological Reports*, 88, 1023–1030.
- Marangoni, C., & Ickes, W. (1989). Loneliness: A theoretical review with implications for measurement. *Journal of Social and Personal Relationships*, 6, 93–128.
- Marcoen, A., Goossens, L., & Caes, P. (1987). Loneliness in pre- through late adolescence: Exploring the contributions of a multidimensional approach. *Journal of Youth and Adolescence*, 16, 561–577.
- Martin, P., Hagberg, B., & Poon, L. W. (1997). Predictors of loneliness in centenarians: A parallel study. *Journal of Cross-Cultural Gerontology*, 12, 203–224.
- Mullins, L. C., Hall Elston, C., & Gutkowski, S. M. (1996). Social determinants of loneliness among older Americans. *Genetic, Social, and General Psychology Monographs*, 122, 453–473.
- Mijuskovic, B. (1996). The phenomenology and dynamics of loneliness. *Psychology: A Journal of Human Behavior*, 33, 41–51.
- O'Rand, A. M. (2001). Stratification and the life course; the forms of life-course capital and their interrelationships. In R. H. Binstock & L. K. George (Eds.), *Handbook of aging and the social sciences* (5th ed., pp. 197–213). New York: Academic Press.
- Penninx, B. W. J. H., van Tilburg, T., Kriegsman, D. M. W., Boeke, A. J. P., Deeg, D. J. H., & van Eijk, J. T. M. (1999). Social network, social support, and loneliness in older persons with different chronic diseases. *Journal of Aging and Health*, 11, 151–168.
- Peplau, L. A., & Perlman, D. (1982). Perspectives on loneliness. In L. A. Peplau & D. Perlman (Eds.), *Loneliness: A sourcebook of current theory, research and therapy* (pp. 1–18). New York: Wiley.
- Perlman, D., & Peplau, L. A. (1981). Toward a social psychology of loneliness. In S. W. Duck & R. Gilmour (Eds.), *Personal Relationships*. 3: *Personal relationships in disorder* (pp. 31–56). London: Academic Press.
- Pérodeau, G.-M., & du-Fort, G.-G. (2000). Psychotropic drug use and the relation between social support, life events, and mental health in the elderly. *Journal of Applied Gerontology*, 19, 23–41.
- Peters, A., & Liefbroer, A. C. (1997). Beyond marital status: Partner history and well-being in old age. *Journal of Marriage and the Family*, 59, 687–699.
- Phillipson, C. (2004). Review article: Urbanisation and ageing: Towards a new environmental gerontology. *Ageing and Society*, 25, 963–975.
- Pilusuk, M., & Minkler, M. (1980). Supportive networks: Life ties for the elderly. *Journal of Social Issues*, 36(2), 95–116.
- Pinquart, M. (2003). Loneliness in married, widowed, divorced, and never-married older adults. *Journal of Social and Personal Relationships*, 20, 31–53.
- Pinquart, M., & Sörensen, S. (2001a). Gender differences in self-concept and psychological well-being in old age: A meta-analysis. *Journal of Gerontology: Psychological Sciences*, 56, 195–213.
- Pinquart, M., & Sörensen, S. (2001b). Influences on loneliness in older adults: A meta-analysis. *Basic and Applied Social Psychology*, 23, 245–266.
- Rawlins, W. K. (1995). Friendships in later life. In J. Coupland & J. F. Nussbaum (Eds.), *Handbook of communication and aging research* (pp. 227–257). Mahwah, NJ: Erlbaum.
- Rokach, A., & Brock, H. (1996). The causes of loneliness. *Psychology, a Journal of Human Behavior*, 33, 1–11.
- Rokach, A., Orzeck, T., Cripps, J., Lackovic-Grgin, K., & Penezic, Z. (2001). The effects of culture on the meaning of loneliness. *Social Indicators Research*, 53, 17–31.
- Rokach, A., & Sharma, M. (1996). The loneliness experience in a cultural context. *Journal of Social Behavior and Personality*, 11, 827–839.
- Rook, K. S. (1984). Promoting social bonding: Strategies for helping the lonely and socially isolated. *American Psychologist*, 39, 1389–1407.
- Ross, C. E., Mirowsky, J., & Pribesh, S. (2001). Powerlessness and the amplification of threat: Neighborhood disadvantage, disorder, and mistrust. *American Sociological Review*, 66, 568–591.
- Rossi, A. S., & Rossi, P. H. (1990). *Of human bonding: Parent-child relations across the life course*. New York: Aldine de Gruyter.
- Russell, D., Peplau, L. A., & Cutrona, C. E. (1980). The revised UCLA Loneliness Scale: Concurrent and discriminant validity evidence. *Journal of Personality and Social Psychology*, 39, 472–480.
- Russell, D. W. (1996). UCLA Loneliness Scale (Version 3): Reliability, validity, and factor structure. *Journal of Personality Assessment*, 66, 20–40.

- Scharf, T., Phillipson, C., & Smith, A. E. (2004). Poverty and social exclusion: Growing older in deprived urban neighbourhoods. In A. Walker & C. Hagan Hennessy (Eds.), *Growing Older – Quality of Life in Old Age* (pp. 81–106). Maidenhead, England: Open University Press.
- Shaver, P. R., & Brennan, K. A. (1991). Measures of depression and loneliness. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 197–289). San Diego, CA: Academic Press.
- Silverstein, M., & Chen, X. (1996). Too much of a good thing? Intergenerational social support and the psychological well-being of older persons. *Journal of Marriage and Family*, 58, 970–982.
- Sippola, L. K., & Bukowski, M. (1999). Self, other, and loneliness from a developmental perspective. In K. J. Rottenberg & S. Hymel (Eds.), *Loneliness in childhood and adolescence* (pp. 280–295). Cambridge, England: Cambridge University Press.
- Stack, S. (1998). Marriage, family and loneliness: A cross-national study. *Sociological Perspectives*, 41, 415–432.
- Stevens, N. (1989). *Well-being in widowhood: A question of balance*. Unpublished doctoral dissertation, Catholic University of Nijmegen, Nijmegen (the Netherlands).
- Stevens, N. (2001). Combatting loneliness: A friendship enrichment programme for older women. *Ageing and Society*, 21, 183–202.
- Stevens, N., & Van Tilburg, T. (2000). Stimulating friendship in later life: A strategy for reducing loneliness among older women. *Educational Gerontology*, 26, 15–35.
- Steverink, N., Westerhof, G. J., Bode, C., & Dittmann-Kohli, F. (2001). The personal experience of aging, individual resources, and subjective well-being. *Journal of Gerontology: Psychological Sciences*, 65B, 364–373.
- Stroebe, W., Stroebe, M., Abakoumkin, G., & Schut, H. (1996). The role of loneliness and social support in adjustment to loss: A test of attachment versus stress theory. *Journal of Personality and Social Psychology*, 70, 1241–1249.
- Sudman, S., & Bradburn, N. M. (1974). *Response effects in surveys: A review and synthesis*. Chicago: Aldine.
- Thomése, F., Van Tilburg, T., & Knipscheer, C. P. M. (2003). Continuation of exchange with neighbors in later life: The importance of the neighborhood context. *Personal Relationships*, 10, 535–550.
- Van Baarsen, B., Snijders, T. A. B., Smit, J. H., & Van Duijn, M. A. J. (2001). Lonely but not alone: Emotional isolation and social isolation as two distinct dimensions of loneliness in older people. *Educational and Psychological Measurement*, 61, 119–135.
- Van Tilburg, T. (1988). *Verkregen en gewenste ondersteuning in het licht van eenzaamheidservaringen* (Obtained and desired social support in association with loneliness). Unpublished doctoral dissertation, Vrije Universiteit, Amsterdam.
- Van Tilburg, T. (1990). The size of the supportive network in association with the degree of loneliness. In C. P. M. Knipscheer & T. C. Antonucci (Eds.), *Social network research: Substantive issues and methodological questions* (pp. 137–150). Lisse, the Netherlands: Swets & Zeitlinger.
- Van Tilburg, T., De Jong Gierveld, J., Lecchini, L., & Marsiglia, D. (1998). Social integration and loneliness: A comparative study among older adults in the Netherlands and Tuscany, Italy. *Journal of Social and Personal Relationships*, 15, 740–754.
- Van Tilburg, T. G., & Broese van Groenou, M. I. (2002). Network and health changes among older Dutch adults. *Journal of Social Issues*, 58, 697–713.
- Van Tilburg, T. G., & De Leeuw, E. D. (1991). Stability of scale quality under different data collection procedures: A mode comparison on the “De Jong Gierveld Loneliness Scale.” *International Journal of Public Opinion Research*, 3, 69–85.
- Van Tilburg, T. G., Havens, B., & De Jong Gierveld, J. (2004). Loneliness among older adults in the Netherlands, Italy, and Canada: A multifaceted comparison. *Canadian Journal on Aging*, 23, 169–180.
- Wagner, M., Schütze, Y., & Lang, F. R. (1999). Social relationships in old age. In P. B. Baltes & K. U. Mayer (Eds.), *The Berlin Aging Study. Aging from 70 to 100* (pp. 282–301). Cambridge, England: Cambridge University Press.
- Waite, L., & Gallagher, M. (2000). *The case for marriage: Why married people are happier, healthier and better off financially*. New York: Doubleday.

- Weiss, R. S. (1973). *Loneliness: The experience of emotional and social isolation*. Cambridge, MA: MIT Press.
- Weiss, R. S. (1974). The provisions of social relationships. In Z. Rubin (Ed.), *Doing unto others* (pp. 17–26). Englewood Cliffs, NJ: Prentice-Hall.
- Wenger, C. G., Davies, R., Shahtahmasebi, S., & Scott, A. (1996). Social isolation and loneliness in old age: Review and model refinement. *Ageing and Society*, 16, 333–358.
- Wilkinson, R. G. (1994). The epidemiological transition: From material scarcity to social disadvantage. *Daedalus, Journal of American Academy of Arts and Sciences*, 123(4), 61–77.
- Windle, G., & Woods, R. T. (2004). Variations in subjective wellbeing: The mediating role of a psychological resource. *Ageing and Society*, 24, 583–602.
- Zimmermann, J. G. (1785/6). *Über die einsamkeit* [About loneliness]. Frankfurt: Toppau.