Consequential Strangers and Peripheral Ties: The Importance of Unimportant Relationships

Social networks in the 21st century include a wide array of partners. Most individuals report a few core ties (primarily family) and hundreds of peripheral ties. Weak ties differ from intimate ties in emotional quality, stability, density (i.e., who knows whom), and status hierarchies. Undoubtedly, close ties are essential for human survival. Yet peripheral ties may enhance life quality and allow people to flourish. Weak ties may serve (a) distinct functions from intimate ties (e.g., information, resources, novel behaviors, and diversion), (b) parallel functions to intimate ties (e.g., defining identity and positions within social hierarchies, helping when a family member is ill, providing a sense of familiarity), and (c) reciprocal influences between peripheral partners and family members (e.g., bioecological theory). Family science might benefit from investigating consequential strangers who pepper daily life.

Wednesday morning, I was rushing to get ready when the phone rang. Another mother confirmed a play date—her son with my son and his babysitter afterschool. I would like to befriend this mother, but neither of us has time to get to know the other better. Before dashing out the door, I wrote a note for Roz, a self-employed woman

who runs a cleaning business and includes our house in her quest to vanguish dust bunnies. My husband had already left with our daughter to do the weekly volunteer work; he stops at a local bakery and drives day-old goods to a food bank before dropping her at daycare. Staff at both locales know our family and greet us cheerfully. At work, my day is peppered by interactions with colleagues, graduate students I mentor, undergraduate students in classes, and the secretary who deserves credit for all that is accomplished. I respond to e-mails from scholars across the United States, in Europe, and in Asia. At 5:00, I run to the daycare and talk with my daughter's care providers. We make it home for dinner, followed by my son's swim practice. Sitting in the bleachers, I gab with other parents about the merit of a new math curriculum and the schedule for road work downtown. After my children go to bed, I comment on my favorite blog (an old friend who writes delightfully of life in Florida). Sometime before midnight, my husband and I have a conversation and get ready for bed.

I am a privileged American woman with an excellent job, a supportive husband, thriving children, and extended family nearby. Nevertheless, I spend most of my time interacting with people I barely know, am not invested in, and barely notice: my son's friend's mother, the woman paid to clean the house, members of a volunteer organization, coworkers and students I serve, colleagues geographically distributed, parents who know more about our schools and town than I do, former friends, and an array of bloggers on the Internet.

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My family is paramount. But my attention is elsewhere.

Research in a variety of disciplines finds that strong family ties contribute to better outcomes and that conflicted family ties may lead to the opposite. Yet my experience is not idiosyncratic; social activity in the 21st century extends beyond the confines of family. According to a recent article in the New York Times (2009), Facebook just hit 100 million members; they and 110 million monthly users of MySpace troll the Internet for connections with friends, former friends, friends of friends and decreasingly intimate contacts (Ellison, Steinfeld, & Lampe, 2007). On a daily basis, employed Americans spend more time with coworkers and clients than with family (Jacobs & Gerson, 2004; Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004). A national assessment found that nonfamilial ties accounted for nearly half of daily interpersonal stresses as well (Birditt, Fingerman, & Almeida, 2005). Relationships outside the family are pervasive in terms of numbers, time, and variety.

Surprisingly, family scientists rarely study nonintimate ties. An analysis of nearly 1,000 articles in family science journals revealed that over 90% of studies focused on romantic ties, parents and children, or friendships, but fewer than 5% dealt with neighbors, coworkers, covolunteers, clergy, church members, or acquaintances (Fingerman & Hay, 2002). Moreover, family scientists may underestimate the value of nonintimate ties. In a second study, three groups of participants rated the importance of relationships such as spouse, child, neighbor, and coworker: individuals who (a) authored papers in family relationship journals, (b) had advanced degrees in other fields (e.g., law, medicine, or art history) and (c) lacked an advanced degree. Compared to the other groups, family scholars placed lower value on ties to neighbors, bosses, church members, grandparents and grandchildren, and acquaintances (Fingerman & Hay). As Milardo (1989) noted 20 years ago:

Social scientists have long held that close and intimate friendships are the sine qua non of personal relationships, and no doubt they are important, but ties with acquaintances are equally important. They figure prominently in the daily lives of many individuals. . . and although they may not be regarded as significant confidants or companions by respondents, they nevertheless serve a variety of important functions. (p. 173)

Undoubtedly, close relationships are important for human survival. Indeed, scholars have long noted that infants can die in the absence of emotional attachment to a care provider (Bowlby, 1969). Likewise, recent research finds loneliness and a lack of close ties in adulthood generate a host of physiological and psychological problems (Cacioppo et al., 2000). Thus, family scholars have correctly identified intimate ties as essential to prevent detrimental outcomes. Yet in order for individuals to flourish, to maximize their sense of connection and well-being, a wide variety of social ties may be imperative.

Here, I discuss functions of relationships that are not intimate. Labels applied to these ties vary. Social network scholars contrast "peripheral" and "core" relationships. A vast literature addresses "weak ties." Researchers have distinguished between primary and secondary ties (Weiss, 1974; Wireman, 1984). Elsewhere, I have referred to "consequential strangers" (Fingerman, 2004). In common parlance, people use the word "acquaintance."

This paper deals with nonfamily peripheral ties, recognizing caveats to this delineation. Intimacy is not synonymous with family. Anyone who has a good friend can youch for this fact. Moreover, kinship ties can be distant. The relationship with a great aunt, grandchild across the country, or stepparent acquired in adulthood may involve little beyond a card at the holidays (Milardo, 2005). Nonetheless, distant kin are typically connected via core family members and, thus, may retain connections in the absence of intimacy. Cousins remain cousins whether they see each other solely at yearly family events or lose track of one another altogether. Nonkin peripheral ties often are ephemeral and defined in specific situations. In the absence of friendship, coworker ties dissolve with a new job. After a move, neighbors who knew each other only in passing have no connection. Of course, divorce and remarriage can introduce instability with ex-in-laws and ex-step ties (Widmer, 2006). Nonetheless, for simplicity in scope, this paper focuses on the broader realm of nonkin peripheral ties.

I address three questions regarding such ties: (a) Why should family scholars care about nonintimate ties? (b) How do peripheral social ties differ from intimate ties? (c) What functions do peripheral ties serve?

Why Should Family Scientists Care About Nonfamily Ties?

Family science is steeped in the premise that humans are social creatures. As a species, we thrive in "family" groups that include intimates. Scholars have devoted considerable attention to the innate human drive for close ties and love (Reis & Aron, 2008) and attachment behaviors (e.g., Bowlby, 1969). Similarly, humans may harbor predispositions to form nonintimate ties.

Humans require nonfamily ties to have healthy children. Diversity in the gene pool necessitates breeding outside close genetic relatives. It is possible to mate with a good friend, but acquaintances provide a wider range of liaisons for human procreation.

Moreover, humans possess a variety of skills facilitating social groups beyond the range of intimacy. Other primates establish relationships in small groups via one-on-one grooming (Dunbar, 1992, 2001). Although people throughout the world also report having 1 to 10 intimates (Antonucci & Akiyama, 1987; Hogan, Carrasco, & Wellman, 2007; McPherson, Smith-Lovin, & Brashears, 2006; Wellman, 2007), human language permits communication in the absence of grooming and allows dissemination of information among nonintimates (Christiansen & Kirby, 2003; Pinker, 2004). Indeed, our ability to communicate regulations and organizational structures permits the formation of large groups, beyond dyadic exchanges. As such, depending on the questions, people list from a few hundred to thousands of individuals in their personal networks (Killworth, Johnsen, Bernard, Shelley, & McCarty, 1990; Milardo, Helms, & Marks, 2005).

Human technologies in modern life have precipitated a surge in peripheral relationships. Adams and Stevenson (2004) argued that in frontier America, with the Pony Express, people had a systematic means of communicating with individuals outside the immediate environ of intimates. In the past 100 years, transportation and communication have become increasingly efficient, accessible, and inexpensive. As the telephone saturated the market, individuals talked with a wide array of social partners outside their homes. Trains, automobiles, and then air service became widespread, allowing people to travel to social partners over great distances, at decreasing costs and with

increasing speed (with the exception of O'Hare airport).

In the past decade, e-mail and cell phones have rendered costs of communication negligible. encouraging frequent correspondence with a wide array of social partners (for individuals who have access to these technologies). The Pew Internet survey (Pew Internet & American Life Project, 2008) reported that 75% of American adults used the Internet as of December 2007, and among adults ages 18 to 29 the rate was 92%. Boase and Wellman (2006) described several features of the Internet that facilitate peripheral relationships: (a) It supports interactions among geographically dispersed social partners (costs are not associated with distance), (b) individuals on different schedules can communicate without being online at the same time, and (c) the ability to e-mail multiple people simultaneously or to forward e-mails eases connection between larger numbers of people. The Internet also has drawbacks, such as fostering miscommunication and encouraging a greater demand for response than occurs with face-to-face or telephone contact. Nonetheless, computer technologies and the Internet have augmented and accelerated trends in peripheral relationships that began earlier in the 20th century. Finally, a surge in social networking sites in the past 5 years has extended the means to organize past, present, and potential future social partners (boyd & Ellison, 2007), suggesting the expansion of social ties may continue.

In sum, family researchers should be interested in nonintimate ties because they form a key dimension of sociability. A decline in fertility renders families smaller than in the mid-20th century and less available to provide daily support (Fingerman, Miller, & Seidel, 2009). People invest time and energy in large numbers of relationships that are not intimate, and, with social networking sites, these trends may be accelerating. This is not to say that individuals value peripheral ties as they do intimate ties; clearly, they do not. Rather, individuals may harbor a need for both types of ties.

Defining Peripheral Ties

Families are social constructions whose members define the parameters of their ties (Carrington, 1999; Widmer, 2006). Definitions of nonintimate social partners are even more complex. Peripheral ties are derived from a wide

array of interpersonal contacts and situations including daily tasks (e.g., fellow commuters, clients), service providers (e.g., hair cutters, physicians), connections of social partners (e.g., MySpace friends of friends, a child's teacher), past associates (e.g., former neighbors, old classmates), leisure companions (e.g., ultimate Frisbee teammates, Internet chat room participants), religious or political involvement (e.g., church congregants, school board members), and informal social forums. Thus, it may be useful to consider broad factors that distinguish these ties from close ones.

Degree of nonintimacy and emotion. To start, we might examine the degree of nonintimacy, or "peripheralness," of a tie. At the lower limit, peripheral ties involve mutual recognition and repeated interactions. Some peripheral ties barely rise above the threshold of acquaintanceship (e.g., people with adjoining seats for season basketball games). Researchers have investigated such "nodding relationships" or "familiar strangers" as sociability in the public realm (see Goffman, 1959; Lofland, 1995; Morrill, Snow, & White, 2005). I coined the term "consequential strangers" to indicate that these ties rest above the realm of strangers but below the threshold for intimacy (Fingerman, 2004).

At an upper limit, peripheral ties may border on close relationships, and the distinction may blur. In the past, scholars attempted to demarcate weak ties from intimate ones on the basis of frequency of contact (e.g., Granovetter, 1973; Wireman, 1984). Today, weak liaisons may involve daily contact on a project at work and exchanges on a Web site or in a virtual game, and frequency of contact may not be the most useful way to distinguish such ties.

A clearer distinction between close and peripheral ties pertains to level of investment and stability of the ties. People are committed to their closest ties; these relationships are difficult to replace and, therefore, tend to remain fairly stable (Marsiglio & Scanzoni, 1995). By contrast, people may consider weak ties "disposable" (Blau & Fingerman, in press). Longitudinal studies of social networks are sparse (Feld, Suitor, & Hoegh, 2007) but suggest instability in weak ties. One such study found widows listed the same individuals as core contacts but listed different individuals as peripheral partners across points of measurement (Morgan, Neal, & Carder, 1996). Suitor and

Keeton (1997) examined social support over time among middle-aged women returning to college at the first interview. Closeness of a relationship at Time 1 was the best predictor of whether that relationship continued to provide emotional support 10 years later.

As such, we might consider two broader categories of weak ties: (a) ties that once were intimate or that will be intimate in the future and (b) ties that remain weak in perpetuity. Intimate relationships often commence via acquaintanceship, proceeding to friendship or romantic ties (Altman & Taylor, 1973; Knapp & Vangelisti, 2000). Similarly, when an intimate tie dissolves amicably it may engender a peripheral tie as a result (Marsiglio & Scanzoni, 1995). Yet some acquaintances do not progress or stem from more intimate ties.

Which leads to the question: Do emotional qualities distinguish peripheral ties that are close at another point in time from those that remain acquaintanceships? Close relationships involve affection (albeit sometimes joined by frustration or disappointment). By contrast, scholars argue that weak ties involve low emotional intensity (Marsden & Campbell, 1984). Research suggests a qualification: Some weak ties evoke negative emotions. When participants of different ages classified social partners as primarily positive, primarily negative, or mixed in emotions (i.e., ambivalent), family and friends dominated the positive and ambivalent categories, but peripheral ties appeared in the negative category (Fingerman, Hay, & Birditt, 2004). These findings may explain trajectories in ties that remain on the periphery. Some weak ties arise in situations where individuals cannot regulate negative feelings by avoiding the other party (e.g., friend of friend). Alternately, the parties may interact in limited circumstances where one irritates the other (e.g., a book club member who dominates). But such negative reactions help explain why certain peripheral ties do not progress to intimacy (e.g., why foster a friendship with an overbearing coworker?). Of course, weak ties may remain weak because of indifference or lack of opportunity, but negative reactions may contribute to some cases.

Density or who knows whom. Weak and intimate ties also may differ as a function of the other relationships in which they are embedded. "Density" refers to whether individuals in a given social circle know one another (Berkman,

Glass, Brissette, & Seeman, 2000). Close ties tend to be linked in tight networks that are homogeneous with regard to ethnicity, social class, and demographic characteristics. Everyone knows everyone else. Acquaintances are often tenuously linked or not connected at all; my graduate students are unlikely to meet my son's swim coach.

Some scholars portray a trend toward increasingly individualized, less dense social networks (Allan, 2006; Wellman, 2007), suggesting social networks today are based on a personal star with tendrils to distinct individuals and groups but few overlaps among the outlying members (Pescosolido & Rubin, 2000). Nearly two decades ago, Giddens (1990) argued that modern life allows great latitude in individual choices, and this choice extends to freestanding personal networks. Networks consist of nonoverlapping cliques or social partners connected to a single individual rather than via formal institutions with long-lasting bounded groups (Allan). Networks become individualized because of daily schedules, contexts, or by choice. For instance, a woman might connect with a romantic partner and children, work associates, clients in different locales, congregants at a megachurch who attend the same service (as opposed to a congregation), attendees at a scrapbooking workshop, people who post at an Internet chatroom, friends of friends on Facebook, and an array of people who provide paid services, such as her cat's veterinarian and the dental hygienist. These social partners are connected to her personally, rather than to institutions or groups she belongs to.

As such, weak ties may serve compartmentalized functions (Granovetter, 1973). An indispensible handyman becomes a peripheral tie, but his role is limited to taking care of household fix-its. Intimate ties are more likely to serve multiple functions. A romantic partner is a confidant, a dance partner, an economic provider, a lover, a cook, and the person who works the TiVo.

In sum, peripheral ties often are unconnected to other ties. Each tie may serve a single function in a limited context. Social networking sites may increase density among both intimate and peripheral ties in the future—everyone becomes a fof (friend of a friend; Ellison et al., 2007). Yet, as I discuss later, the unconnected nature of weak ties may provide distinct advantages.

Hierarchical positions and who pays whom. Finally, although intimate ties are subject to

power differentials, peripheral ties are more likely to involve formal status hierarchies. For example, many European languages have two forms of the pronoun "you." The informal form (e.g., *tu* in French) is used with children and intimates, and a formal form (e.g., *vous* in French) is used with acquaintances (Fingerman, 2004). Thus, in some cultures, the formality of peripheral ties is linguistically marked.

Moreover, some peripheral ties are economic in nature; one party pays the other for services. Such paid relationships may include warmth and regard. Haircutters, lawyers, and bartenders enhance their clients' mental health by listening to their personal problems and offering advice (Cowen, 1982; Toro, 1986). Such ties are distinct from intimate ties, however, because relationships are constrained to a context in which payment occurs.

Experiences in peripheral ties also may vary as a function of status. Low-paid workers, in particular, are susceptible to adverse effects of poor relations with bosses or customers. For example, Williams (2006) conducted a participant-observer study working as a minimum-wage employee in toy stores. Some of the shoppers used her as a "personal buyer" and asked her opinion regarding different gadgets. Although the buyers sought a connection, Williams felt belittled. Another study revealed that health care assistants experienced higher blood pressure on days when they worked for supervisors whom they disliked than on days when they worked for supervisors they preferred (Wager, Fieldman, & Hussey, 2003).

The hierarchical nature of these ties has implications for family life. Spouses and children typically share socioeconomic status, and, likewise, they may share experiences of status and power differentials in peripheral ties. Moreover, upper-middle-class families increasingly "outsource" their daily tasks (Van der Lippe, Tidjens, de Ruijter, 2004), requiring negotiation between intimate and paid providers in family life with children.

¹Historically, the formal term for "you" was employed with adults deemed one's social peers at varying degrees of intimacy, including one's spouse, whereas the informal "you" applied to children and individuals deemed socially inferior. Modern language has adapted this distinction to delineate degrees of intimacy rather than social hierarchies, but the formal "you" still conveys politeness.

Functions of Peripheral Ties and Intimate Ties

Given the array of paid and unpaid peripheral ties in individuals' lives, we might ask what these ties do beyond what families or intimate ties do. Peripheral ties encompass a wide range of relationships. As such, different weak partners may serve distinct functions in an individual's social network. Theoretically, I propose understanding these functions by considering whether peripheral ties (a) enhance intimate ties, (b) serve distinct functions from intimate ties, (c) serve parallel functions, or (d) interact with and influence intimate ties as in ecological theory (e.g., Bronfenbrenner & Morris, 2006). Functions of peripheral ties are not exclusively complementary or influential of intimate ties; functions overlap. Theoretically, however, these types of functions serve as a heuristic to explain how peripheral ties interface with intimate ties.

A vast literature regarding social integration suggests that being engaged with a wide array of social ties enhances individual well-being (see Berkman et al., 2000). One conclusion to draw from such studies is that intimate ties are beneficial, but peripheral ties add something more to quality of life. Indeed, the social integration literature dovetails with a functionalist perspective on relationships. Over 30 years ago, Weiss (1974) observed that members of Parents without Partners formed strong friendships but still missed their spouses. Couples with warm marital ties who had recently moved to a new area missed their friends. He posited that people possess distinct social needs (e.g., attachment, opportunities to nurture, a sense of belonging, and sharing interests and activities), and social partners serve specialized functions. Parents cannot fill their children's need for friends; peripheral ties cannot fill needs of intimacy. As such, a diverse array of ties is optimal (Mancini & Blieszner, 1992; Russell, Cutrona, Jayne, & Yurko 1984). Given the wide array of peripheral ties, not all peripheral ties serve functions distinct from intimate ties. Peripheral partners who serve functions complementary to intimate ties are likely to be distal ties.

Peripheral ties also may serve functions parallel to intimate ties. For example, peripheral ties might be "vice-intimate" and provide support in emergencies or crises. Such weak ties may be dormant and become active when life stages or locations converge. Weak ties also may serve the same functions intimate ties serve, albeit in a different way. For example, individuals define themselves in intimate ties as a spouse, parent, or friend (Anderson & Chen, 2002). Peripheral ties may support different aspects of identity in the work, hobbies, or leisure settings. Peripheral ties that parallel functions of intimate ties encompass a range of weak ties, reflecting individual latitude in choices of social partners.

Finally, ecological theory suggests that peripheral ties and intimate ties may influence one another. Mutual influences occur when temporal or contextual overlap between peripheral and intimate ties is evident. For example, when individuals rush home from their jobs, they may experience emotional spillover from work (Crouter & Bumpass, 2001; Repetti, 1993). Table 1 lists interfaces between peripheral and intimate ties.

Distinct functions of peripheral ties. Two bodies of research support the functionalist perspective that different relationships have distinct utility: studies of (a) social integration and (b) information and resources from weak ties. These literatures are disparate, but, theoretically, both address the premise that weak ties provide unique benefits not available in close ties.

Table 1.	Types of	Associations Between	Peripheral an	nd Intimate Ties an	d Examples

Function of Peripheral Ties Relative to Intimate Ties	Examples of Functions	Types of Relationships
Enhancing intimate ties Distinct from intimate ties	Social integration Information resources, diverse activities, novelty	Wide array of peripheral ties Distal from close ties
Parallel functions	Personal meaning, self-identity, emergency support	Individualized peripheral partners
Influence on intimate ties	Work/family spillover, assistance with family tasks	Overlapping in time or context with intimate ties

Social integration and enhanced benefits. Studies have linked personal relationships to physical and mental well-being via "social integration" (Berkman et al., 2000). Interestingly, the social integration literature has not focused explicitly on weak ties but rather on the broader premise of social activity and well-being. Nonetheless, studies of social integration typically assess both intimate and weak ties, and cumulative findings suggest that having weak ties (e.g., neighbors or church or community members) adds to benefits from intimate ties.

Indeed, this literature shows that network diversity (the presence of close and peripheral ties) enhances health behaviors and psychological outcomes, controlling for key indicators associated with these outcomes (e.g., baseline health, age, body mass, race, gender, Big 5 personality traits, education). For example, Cohen, Doyle, Skoner, Rabin, and Gwaltney (1997) asked healthy adults to indicate their involvement with 12 different relationship partners in the past 2 weeks (e.g., spouse, child, friend, workmates, fellow volunteers, members of religious groups). Then, participants were exposed to a cold virus in an isolated setting for 5 days and measured their symptoms each day (e.g., mucus secretion, subjective symptoms). Participants who had contact with six or more types of partners (including peripheral ties) were less susceptible to the common cold.

Studies also have linked network diversity and well-being in a variety of other settings. Sorensen and colleagues (2007) found ties to family, friends, and group membership were associated with increased consumption of fruits and vegetables in an intervention study. Cohen and Lemay (2007) established that lower network variety was associated with more daily drinking and smoking. Bassuk, Glass, and Berkman (1999) reported that engagement with diverse social partners lessened risk of cognitive decline among elderly adults over a 12-year period.² Moreover, older adults who interact with family, friends, and peripheral ties report

better physical and psychological well-being and live longer than older adults with less diverse networks (Fiori, Antonucci, & Cortina, 2006; Litwin & Laundau, 2000; Litwin & Shiovitz-Ezra, 2006a; Wenger, 1997).

These findings suggest that networks including weak ties as well as family and friends provide distinct benefits for well-being. Conclusions must be interpreted with caution, however. Researchers have attempted to control for health at the onset (e.g., Berkman & Syme, 1979), but sickly individuals may retreat into a smaller social circle or be shunned by their associates because of their illness. Exposure to a wide variety of people also may affect health via exposure to a greater array of pathogens, thus building immunity, regardless of relationship variety. Social integration also may be one jewel in a rich array of advantages. For example, individuals who have agreeable personalities are more likely to have many social partners. As well, such positive personality traits have been linked to better health outcomes (Maruta, Colligan, Malinchoc, & Offord, 2000). Thus, it is not possible to fully disentangle causal ordering in how and why individuals end up with more diverse networks and also remain healthier in those networks.

Yet a plethora of research on social integration using different methodologies suggests that engaging with different types of partners benefits well-being. This premise extends research on close ties. Having one or more intimate ties mitigates loneliness and a host of negative outcomes (Cacioppo et al., 2000) and also allows for instrumental support when individuals need help (Antonucci & Akiyama, 1987; Troll, 1994). Moreover, in old age, when individuals are most vulnerable, families are a mainstay of support (Fiori et al., 2006). But individuals who have such close family ties and who also engage with friends, neighbors, volunteers,

²Researchers have linked cognitive benefits to social engagement, but conceptualization and measurement of 'social engagement' are inconsistent. Bassuk and colleagues (1999) found greater social engagement across a variety of relationships (e.g., spouse, relatives, friends, social recreational activities) was associated with lower rates of cognitive decline among older adults in their longitudinal study. Cognitive stability in old age has been associated

with emotional support, supportive social partners, or presence of family members (e.g., Arbuckle, Gold, Andres, Schwartzman & Chaikelson, 1992; Fratiglioni, Wang, Ericsson, Maytan, & Winblad, 2000; Litwin & Shiovitz-Ezra, 2006b; Seeman, Lusignolo, Albert, & Berkman, 2001). Still other researchers have measured social activities rather than the type of partners (Lovden, Ghisletta, & Lindenberger, 2005; Ybarra et al., 2008). Cumulative findings suggest that social activities facilitate cognitive benefits, but distinct benefits from peripheral ties are unclear.

and peripheral partners show the best well-being (Cohen et al., 1997; Fiori et al; Litwin & Shiovitz-Ezra, 2006a). Thus, we might ask what unique benefits weak ties convey that families or intimates do not.

Information. Over 30 years ago, Granovetter (1973) coined the term "weak ties" in a study describing how individuals secure new jobs. Because peripheral partners typically do not share the high density of family ties (where everyone knows everyone else), Granovetter argued these partners can serve as "bridges" to new social partners and provide information leading to new jobs. Take the hypothetical case of Mary and her acquaintance John. Mary's family members know the same people, none of whom has a job for Mary. John serves as a "bridge" to his friend, Laura, whom Mary has not met. Laura knows of a job requiring Mary's expertise. John provides a bridge from one social network (i.e., Mary's family) to another consisting of Laura and her associates. Indeed, Granovetter's participants tended to find jobs via social partners who were never close.

In the decades since Granovetter published his paper, thousands of studies have confirmed that weak ties diffuse information. Many of these studies focus on employment (e.g., D. W. Brown & Konrad, 2001; Yakubovich, 2005) but also cover such diverse topics as taste in music (Lopez-Sintas, Garcia-Alvarez, & Filimon, 2008), smugglers of political refugees in Europe (van Liempt & Doomernik, 2006), and measles prevention in Nepal (Dugger, 2006).

Moreover, family members sometimes use one another's weak ties to garner information. Uehara's (1994) ethnographic analysis of 17 low-income African American mothers who had lost their jobs revealed that when a woman's family members had connections to peripheral partners she did not know, the woman was more likely to find a job. Although this study suggests lower socioeconomic (SES) families use weak ties for access to jobs as do upper SES families, it is also important to realize that personal agency is not the only explanation for access to resources. Lower SES families are less likely to have the "right connections" to gain financial resources. Moreover, not all family members have equal access to powerful partners, and within-family differences could generate resentments.

Resources. Along with information, peripheral ties may confer nontangible resources to families. Sociologists have considered "social capital" as a means of understanding benefits of power and influence that sociability may confer (Lin, 2001; Portes, 1998). The term introduces some confusion (Fischer, 2005), but sociologists generally hold two views of social capital: (a) properties of the civil society (Foley & Edwards, 1998) or (b) benefits to the individual from personal relationships (Milardo, et al., 2005). Putnam's (2000) treatise, Bowling Alone, documented a decline in social capital as a property of society from the mid- to late 20th century because of decreased activity in formal organizations (e.g., declining memberships in Rotary Clubs, bowling leagues). Putnam's (2000) treatise pertains to people's affiliations with institutions and engagement with a broader society, rather than whether or not individuals have personal relationships with a wide array of partners. Thus, a decline in membership in organizations may speak to a loss of social capital at a societal level. But this decline does not negate the premise that peripheral ties generate personal social capital. Rather, individuals may be unwilling to commit to formal organizations but find rewards in transient ties. To paraphrase Putnam (2000), people are bowling for one evening with acquaintances, with no commitment to bowl together again.

With regard to personal relationships, Milardo and colleagues (2005) argued that people invest in relationships and receive emotional gains, practical assistance, advice, information, and other rewards as "social capital." In this respect, families with a greater number of peripheral ties may have access to more benefits than families that are more insular. For example, Jarrett (1999) reported that poor African American parents who foster positive outcomes do so by relying on strong family ties and turning to peripheral ties to secure resources not available in their environment such as scouting troops, excellent libraries, and private schools. Further, Jarrett, Sullivan, and Watkins (2005) found youth programs linked disadvantaged teenagers to unrelated adults with important assets (e.g., exposure to adult worlds, support, and encouragement). The wealthy also benefit from such liaisons. Entry into a prestigious school requires a party who puts in a "good word" or writes letters of recommendation.

Thus, the rewards of weak relationships may extend beyond information to nontangible resources that facilitate individuals' social goals. Moreover, the types of periperhal ties that provide such resources may be distinct from those that simply provide information. People obtain information from distal unconnected ties, but peripheral ties that are connected to one another (characterized by greater density) may yield social capital (Burt, 2001; Milardo et al., 2005). People who know one another engender trust and share resources in a group more willingly, even among coworkers and people on the periphery of the network (Burt, 2001).

Structural holes. In addition to information and social capital, peripheral ties may broker "structural holes" or gaps in links between disparate social groups. Individuals who negotiate these gaps can generate rewards by garnering diverse ideas from each group. An individual who occupies a structural hole also may be in a position to extract a "tariff" for mediating between groups (see Burt, 1992, 2004). In other words, weak ties allow individuals to reach multiple social spheres and to transfer rewards available in each of those spheres. Benefits of such a position may be evident in business, where individuals may be able to profit from privileged access to information and move up the hierarchy of the organization more rapidly.

At the same time, there may be costs to individuals who occupy such peripheral positions between groups. Faculty members holding joint appointments in two departments serve as a case in point. Although such faculty benefit from ideas and resources in two disciplines, they also face excess demands for service, lack of recognition in a primary field, and uneven mentorship toward tenure. Thus, having access to peripheral ties can be beneficial, but being on the periphery of multiple groups also may entail costs.

Novelty and stimulation. Theoretically, peripheral relationships also may be a fount of enjoyment and entertainment. Intimates tend to share culture and engage in similar ways of behaving. Acquaintances bring new behaviors (and even new food) to the table. Peripheral ties may expand families' cultural experiences.

To understand the role of peripheral ties in such processes, researchers might draw on socioemotional selectivity theory (SST: Carstensen, 2006; Carstensen, Isaakowitz, & Charles, 1999). Research testing SST has shown that future time perspective is associated with seeking close or peripheral ties. When individuals face a termination such as graduation, a promotion at work, or political upheaval, they seek contact with their closest family members and friends. But when individuals face an open future, they show increased interest in acquaintances, reflecting their greater desire for information and novelty (Charles & Piazza, 2007; Fung & Carstensen, 2006; Fung, Carstensen, & Lutz, 1999). Most studies of SST have focused on emotional rewards individuals seek when confronted with a termination, but family scientists might instead examine cultural information in peripheral ties. Indeed, in unrelated research, Erickson (1996) asked participants whether they knew a relative, close friend, or acquaintance in several lines of work (e.g., lawyers, bankers, or electricians) and had them complete a measure of cultural knowledge (e.g., the arts, literature, and popular culture). People who had weak ties in a variety of professions also demonstrated more vast cultural knowledge. Of course, individuals who are interested in culture may seek out acquaintances rather than the reverse. Yet, theoretically, weak ties provide new cultural experiences.

Further, peripheral ties provide diversions not available from family members. Weiss (1974) argued that people's needs for shared activities are met by secondary ties. This is not to say that families do not engage in leisure activities together: Newspapers in U.S. cities list a plethora of activities for middleclass children and parents (DeVault, 2000). Yet, well-off adolescents and young adults spend considerable leisure time with close friends, cliques, and tangential acquaintances (Arnett, 2007; B. B. Brown, 2004). The youthful desire for fun with peers may be intrinsic. For example, social life among rhesus monkeys revolves around strong matrilineal lineages, but in their 3rd month, young monkeys establish ties to peers with whom they develop new skills and play (Suomi, 2005). Although conclusions from monkey behavior to human behavior are tenuous, monkeys desire fun and novelty from peers akin to humans.

Finally, researchers should examine individual differences in seeking information and novelty from peripheral partners. Scant research suggests personality traits such as extraversion have a greater influence on network size than on functions of social partners (Lang, Staudinger, & Carstensen, 1998). Yet, in the context of family, we might ask whether all family members harbor the need for diversion from outside or whether this need is limited to adolescents and young adults. Family scholars also might ask whether some ethnic groups value stimulation from outsiders, whereas other ethnic groups are more insular and resistant to outside influence. In a cross-national study, Killworth and colleagues (1990) found individuals in Mexico City reported networks one third the size of those reported by individuals in Jacksonville, Florida. These differences suggest cultural underpinnings in the desire to connect with peripheral

In sum, weak ties serve complementary functions not available from close ties. A vast literature stemming from Granovetter's (1973) study reveals that people utilize weak ties when they confront a problem requiring information, such as access to a job. Theoretically, peripheral ties also may provide access to resources and to new cultural repertoires, diversion, and fun.

Parallel functions of close partners. Weak ties also may serve functions intimate ties serve, but in a different manner. For example, individuals define themselves in family roles (e.g., spouse or parent), but peripheral ties may add to a more complex identity. Alternately, in some situations, people may turn to peripheral partners to offer support they typically receive from closer social partners.

Defining the self. Identity in modern life is complex and includes ties to significant and peripheral partners. Individuals navigate a variety of roles situated in close ties (e.g., father, lover, or caregiver to parent) and in weak ties (e.g., worker, hobbyist, or churchgoer; Thoits, 2003). Self-representations include thoughts of the self in both significant and insignificant relationships (e.g., "me with my poker buddies" or "me with my students"; Chen, Boucher, & Tapia, 2006). Thus, other people become incorporated into individuals' motives and self-regulatory strategies (Anderson & Chen,

2002; Brewer & Garner, 1996; Sedikides & Brewer, 2001).

Theoretically, because close ties are more likely to involve multiplexity and weak ties are more likely to serve only a single function (Granovetter, 1973), aspects of the self derived from weak ties may be less complex than aspects of the self derived in close ties. Being a parent involves diverse positive and negative experiences, but being a member of a model airplane club is constrained to a narrow repertoire of behaviors and expectations.

In addition, individuals use social ties for evaluating self-worth. Cooley (1902) long ago noted that people attempt to view themselves through others' eyes. Weak ties may provide a vantage for reference not available in closer ties. More specifically, social comparisons allow individuals to situate themselves within hierarchies (e.g., assess whether they are prettier or uglier, smarter or dumber than others, or fly better). In diary studies, college students reported social comparisons of comparability with their closest ties (e.g., feeling similar to them) but downward comparisons (viewing themselves as better) with acquaintances (Locke, 2003; Wheeler & Miyake, 1992). Viewing oneself as better than a close partner might jeopardize the relationship, but the transient nature of acquaintanceship provides latitude for downward comparison that can be important for individuals' sense of self-worth.

Peripheral ties also may provide nostalgia and reminders of a valued past self. In a study of holiday cards, older adults enjoyed receiving greetings from former neighbors, college roommates, or old friends whom they had not seen in decades. Adults of all ages felt a connection to their personal past via such tangible reminders (Fingerman & Griffiths, 1999). Thus, whereas distal peripheral ties provide opportunities for social comparisons, former close ties may provide continuity in one's sense of self.

Interestingly, individuals may regulate emotional expression differently in close and weak ties. In many situations, individuals are more constrained with acquaintances than with intimates. Prescribed paid roles force individuals to regulate emotions carefully and deny some true feelings (Sloan, 2007). People who experience painful transitions (e.g., death of a loved one) must constrain feelings at work. In these situations, close ties provide latitude for expression

of intense emotions (Rafaeli & Sutton, 1987). In other settings, where relationships are not formally defined and when social partners experience a sense of isolation, they may engage in personal disclosure, as in the "stranger on the train' phenomenon noted decades ago (Altman & Haythorn, 1965; Altman & Taylor, 1973; Rubin, 1976). Recently, scholars have noted the "disinhibition effect" on the Internet; people disclose personal information, despite the public setting (Barak & Gluck-Ofri, 2007; Suler, 2004). Thus, in settings where intimacy is not desired (e.g., formal paid work), the "authentic self" may be stifled, but in quasi-anonymous settings (e.g., Internet chat room), people may express their innermost feelings.

Seeking familiarity. Finally, it is worth considering why people seek to know individuals who otherwise could remain anonymous. People connect with a barista, joggers at the gym, or the security guard at work. Theoretically, a desire to connect with others tangentially may reflect motivation for "familiarity" when engaging in activities away from family. Indeed, family scientists and cultural anthropologists have focused on rituals families use to generate a sense of continuity over time (Fingerman, Buckser, & Turiano, 2009). Likewise, individuals may develop personalized weak ties in their daily life to establish a sense of continuity and routine.

Such weak ties also may generate comfort by expanding boundaries of an individual's in-group. People experience positivity biases for individuals who are members of their ingroup (Brewer, 2007). In-groups often are based on gender, family lineage, or ethnic heritages. By connecting to weak partners in other contexts (e.g., professions, hobbies, and religion) and expanding their in-group, individuals may generate feelings of positivity.

Of course, contact alone does not precipitate favorable feelings. Putnam (2007) found that individuals in urban areas who have access to people from different cultures showed diminished trust toward members of all ethnic groups (including their own). Brewer and Pierce (2005) found that when individuals develop weak ties in homogeneous dense groups, they report less acceptance of multicultural diversity. In other words, establishing weak ties with fellow KKK members does little to enhance positivity in the community.

Nonetheless, as a social species, humans may be motivated to enhance group size when they feel insecure, even when potential connections are destined to remain weak. This phenomenon has been documented among primates. An experimental study in Ivory Coast found that monkeys formed crossed species groups (red colobus and Diana monkeys) when exposed to cries of their natural predator, chimps (Dunbar, 1997). These patterns beg comparable research questions about humans: How do we decide which strangers to make consequential strangers? Why do some people seek acquaintanceship, whereas others prefer anonymity?

In sum, individuals define distinct aspects of their identity, situate themselves in social hierarchies, and offer alternate patterns of emotional expressions in their weak ties. Some people may opt to link with consequential strangers for the sake of establishing a sense of familiarity when away from family in their daily lives, but additional research is needed to understand why.

Interactions between close and peripheral partners. Finally, bioecological theory (previously ecological theory) suggests families are situated in environmental systems that generate reciprocal influences (Bronfenbrenner & Morris, 2006). The flow in these systems is often from weak ties in the larger environment to individuals within the family. For example, parental involvement with children's teachers, peers, and care providers renders benefits to the child (Bronfenbrenner & Morris; Brooks-Gunn, Fuligni, & Berlin, 2003).

The largest literature stemming from the bioecological perspective examines work and family spillovers (e.g., Crouter & Bumpus, 2001; Story & Repetti, 2006). For example, Repetti (1993, 1994) examined air traffic controllers' stress. She quantified objective job stress on the basis of weather and flight patterns as well as subjective stress with coworkers on a given day. Stress with coworkers had a deleterious effect on behaviors at home with spouse and children that evening, regardless of objective stressors. Moreover, research using a national sample suggests that, reciprocally, families may influence stress at work (Grzywacz & Marks, 2000).

Nonetheless, coworkers might enhance family life under ideal circumstances. One study

suggests that individuals today face greater fragmentation of work and family than in the past. Marks (1998) presented a reanalysis of data regarding women from the classic study of the Hawthorne plant in the 1920s. Data from that study provided rich observations of conversations and family life. These female coworkers talked about family in detail, invited one another to their homes, and even shared their beds when the weather necessitated a stay overnight. Comparable observations regarding modern work settings might benefit family science, with attention to the boundaries between relationships among family and nonfamily members.

Surprisingly, studies also rarely examine weak ties versus family ties outside of work. Scant research has shown friendship may exert influence on marital qualities (e.g., Helms, Crouter, & McHale, 2003; Klein & Milardo, 2000). Helms et al. described gender differences in the ways in which husbands and wives used friends to enhance or detract from marital qualities. Acquaintances also may influence marital relationships in situations where the couple shares acquaintances as well as in situations where they do not.

Likewise, childrearing increasingly occurs in the realm of nonintimates. A qualitative study found parents altered strategies to control children in public settings with strangers (Horne, McIlwaine, & Taylor, 2005). Given that weak ties require more regulated emotion in some contexts, but allow greater latitude of expression in other contexts, parental regulation of children's behaviors also may vary in different settings with weak ties, with parents allowing children considerable latitude in certain settings (e.g., play date) but proffering greater demands in other settings (e.g., expensive dance lessons or tutoring).

Peripheral ties also may be important because of their location in ecological niches outside the shared milieu of family life. Close family members share crises. In one study, women suffering breast cancer and their significant others participated in interviews at 4 and 10 months postdiagnosis. The cancer patients reported that close social partners helped with physical problems but were unable to alleviate their emotional distress because they were also distressed (Bolger, Foster, Vinokur, & Ng, 1996). Research also finds that caregivers for frail elderly or disabled family members are at

high risk of physical and mental health problems (Schulz & Beach, 1999), but caregivers who have a variety of close and peripheral ties are at lower risk (Cannuscio et al., 2004). This literature is not well developed, but, theoretically, when families suffer collective stress, weak ties may offer tangible aid (e.g., tuna casseroles) or nontangible aid (e.g., emotional support) that influences the family on the whole.

In sum, peripheral partners not only serve complementary and parallel functions but also influence family members' behaviors. Research examining bioecological theory focuses on individual experiences (e.g., stress of work demands) rather than peripheral ties (e.g., stress with coworkers), but the literature suggests these ties play a role in ecological spillovers.

Conclusion

Nearly 20 years ago, Giddens (1990) argued that social life had changed dramatically in the modern world. Historically, people could observe one another's actions and build collective loyalties. Today, relationships span time and location, and social life is disjointed (Giddens). In the modern scholarly view, family members are primary agents of individualized and distinct social ties (Allan, 2006; Wellman, 2007). Missing from this conception are the intricacies of overlapping networks that benefit or detract from the collective whole. Family systems theory has long held that systems are more than the sum of their parts (Bowen, 1960; Fingerman & Bermann, 2000). A 21st century examination of social life should consider the webs of family members' interconnected ties.

Several key questions remain regarding associations between these peripheral partners and family members. For example, building on definitional issues presented earlier, researchers might seek to measure the degree of peripheralness of relationships. Family scholars have developed assessments to tap multidimensional aspects of relationship quality in close ties (Bradbury, Fincham, & Beach, 2000; Fletcher, Simpson, & Thomas, 2000). The "peripheralness" of ties also may be multifaceted, including issues mentioned previously (degree of perceived closeness, formality, and density with other network members). Further, definitions of peripheral ties within the family warrant consideration. Ex-in-laws, far-flung stepparents, and distant cousins may rest on the periphery

and yet prove to be influential. When a family relationship that is normatively intimate is rendered peripheral (e.g., divorced fathers; Webster & Herzog, 1995), parties may suffer negative consequences. Thus, defining dimensions of peripheral ties may yield a fuller understanding of family ties and how they vary in influence.

Additional research also is needed to understand how peripheral ties contribute to well-being. Several literatures suggest that a lack of intimate ties has detrimental physiological and psychological consequences (e.g., Bowlby, 1969; Cacioppo et al., 2000; Troll, 1994). Yet cumulative evidence suggests peripheral ties enhance well-being above and beyond the basic survival mechanisms evident in closer ties. Thus, close ties are essential for individuals to survive, but peripheral ties may be essential for individuals to flourish.

Here, I suggested three theoretical functions of peripheral ties relative to family ties: (a) distinct functions that yield benefits of a diverse network (e.g., access to information or resources that intimates do not have, novel behaviors, and diversion), (b) functions parallel to intimate ties (e.g., definition of self, regulation of emotion, sense of familiarity), and (c) reciprocal influences between peripheral partners and family members. The overarching theme is that family ties are embedded in networks including hundreds of social partners. Family researchers have focused on small units with one or two adults and a few children. Social network researchers have amassed considered knowledge regarding size and structure of network configurations (Hogan et al., 2007; Killworth et al., 1990) but have not articulated the personal relationships between these people. Family scientists are well situated to fill this "structural hole" by explaining how and why different types of social partners influence one another.

With regard to the distinct functions of peripheral ties, following Granovetter's (1973) seminal paper, research has focused on information in weak ties. Yet Google and interactive Web sites have partially supplanted the function of providing information, and, thus, stimulation and novelty may be a more relevant focus for future research on weak ties. Indeed, scholars have argued that adolescents require skills to interact with a variety of social partners in complex settings to be successful adults in the 21st century (Larson, Wilson, Brown, Furstenberg, & Verma 2002). Interactions

with peripheral partners are pervasive in a multicultural society, migratory country, and transnational economy.

The parallel functions that peripheral ties serve should intrigue family scholars. If we presume that close family members serve a given function, the nuances of nonfamily and nonintimate ties serving these functions may provide information about family life. For example, we do not know what types of individuals seek a sense of stability in daily life outside the family or when people decide to connect to peripheral partners.

Finally, with regard to ecological processes, family science might consider how different family members react to one another's weak ties. When one family member switches jobs, family members lose contact with that person's coworkers. A geographic move might connect one family member with another relative's old friends. A widow's peers may mitigate her distress and lessen demands she places on her children (Morgan, 1989). Moreover, family members may benefit indirectly from another member's peripheral ties. For example, well-off parents use a variety of paid services for their children (Hulbert, 2003). These relationships may affect parental well-being when their children acquire new skills via extracurricular lessons.

In sum, Hillary Clinton's famous statement "it takes a village" has evolved into a collective of weak ties, peripheral partners, consequential strangers who offer advice, bring children to heights of learning, provide role models for emulation, and shape our family's experiences. The central plot of my life story involves family members, but bit part characters provide guest appearances. Years ago, a masterful swim teacher helped my terrified preschooler overcome a fear of water, and, today, I bask in pride when he swims a "power hour" with his team. Midwestern neighbors showed up with casseroles the week my daughter was born, dampening the stress of a new baby. Five years later, she sings "Happy Birthday" in six languages, acquired on the playgrounds via Purdue's vast international community. Wellmeaning acquaintances undermine my efforts at nutritious dinners, proffering Oreos at late afternoon activities. A friend's mother takes an afternoon off to fly kites with the boys when school lets out early, and I follow suit the next time.

Peripheral ties will never supplant family ties at the center of social life, but these ties require increasing time and energy. Given the imbalance regarding what we know about family ties and what we do not know about peripheral ties, family researchers might seek to understand how these ties enhance or detract from families' quality of life.

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REFERENCES

- Adams, R. G., & Stevenson, M. L. (2004). A lifetime of relationships mediated by technology. In F. R. Lang & K. L. Fingerman (Eds.), *Growing together: Personal relationships across the lifespan* (pp. 368–394). New York: Cambridge University Press.
- Allan, G. (2006). Social networks and personal communities. In A. L. Vangelisti & D. Perlman (Eds.), *Cambridge handbook of personal relationships* (pp. 657–671). New York: Cambridge University Press.
- Altman, I., & Haythorn, W. W. (1965). Interpersonal exchange in isolation. *Sociometry*, 23, 411–426.
- Altman, I., & Taylor, D. A. (1973). Social penetration: The development of interpersonal relationships. New York: Holt, Rinehart, & Winston.
- Anderson, S., & Chen, S. (2002). The relational self: An interpersonal social-cognitive theory. *Psychological Review*, 109, 619–645.
- Antonucci, T. C., & Akiyama, H. (1987). Social networks in adult life and a preliminary examination of the convoy model. *Journal of Gerontology*, 42, 519-527.
- Arbuckle, T. Y., Gold, D. P., Andres, D., Schwartzman, A., & Chaikelson, J. (1992). The role of psychosocial context, age, and intelligence in memory performance of older men. *Psychology and Aging*, 7, 25–36.
- Arnett, J. (2007). Socialization in emerging adult-hood: From the family to the wider world. In P. D. Hastings & J. E. Grusec (Eds.), *Handbook of socialization* (pp. 208–231). New York: Guilford Press.
- Barak, A., & Gluck-Ofri, O. (2007). Degree and reciprocity of self-disclosure in online forums. CyberPsychology and Behavior, 10, 407 – 417.
- Bassuk, S. S., Glass, T. A., & Berkman, L. F. (1999).Social disengagement and incident cognitive

- decline in community-dwelling elderly persons. *Annals of Internal Medicine*, 131, 165–173.
- Berkman, L. F., Glass, T., Brissette, I., & Seeman, T. E. (2000). From social integration to health: Durkheim in the new millennium. *Social Science and Medicine*, *51*, 843–857.
- Berkman, L. F., & Syme, S. L. (1979). Social networks, host resistance, and mortality: A nine year follow-up study of Alameda County residents. *American Journal of Epidemiology*, 109, 186–204.
- Birditt, K. S., Fingerman, K. L., & Almeida, D. M. (2005). Age differences in exposure and reactions to interpersonal tensions: A daily diary study. *Psychology and Aging*, 20, 330–340.
- Blau, M., & Fingerman, K. L. (in press). Consequential strangers: People who don't seem to matter, but really do. New York: Norton.
- Boase, J., & Wellman, H. (2006). Personal relationships on and off the Internet. In A. L. Vangelisti & D. Perlman (Eds.), *Cambridge handbook of personal relationships* (pp. 709 726). New York: Cambridge University Press.
- Bolger, N., Foster, M., Vinokur, A. D., & Ng, R. (1996). Close relationships and adjustments to a life crisis: The case of breast cancer. *Journal of Personality and Social Psychology*, 70, 283–294.
- Bowen, M. (1960). The family as the unit of study and treatment. *American Journal of Orthopsychiatry*, 31, 40–60.
- Bowlby, J. (1969). *Attachment and loss* (Vol. 1). New York: Basic Books.
- boyd, d. m., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13, 210–230.
- Bradbury, T. N., Fincham, F. D., & Beach, S. R. H. (2000). Research on the nature and determinants of marital satisfaction: A decade in review. *Journal* of Marriage and the Family, 62, 964–980.
- Brewer, M. B. (2007). The importance of being we: Human nature and intergroup relations. *American Psychologist*, 62, 728 738.
- Brewer, M. B., & Garner, W. (1996). Who is this "we"? Levels of collective identity and self representations. *Journal of Personality and Social Psychology*, 71, 83–93.
- Brewer, M. B., & Pierce, K. P. (2005). Social identity complexity and outgroup tolerance. *Personality* and Social Psychology Bulletin, 31, 428-437.
- Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In W. Damon (Ed.), *Handbook of child psychology* (6th ed., pp. 793–825). New York: Wiley.
- Brooks-Gunn, J., Fuligni, A. S., & Berlin, L. J. (2003). Early childhood development in the 21st century: Profiles of current research initiatives. New York: Teacher's College Press.
- Brown, B. B. (2004). Adolescents' relationships with peers. In R. M. Lerner & L. Steinberg (Eds.),

- handbook of adolescent psychology (2nd ed., pp. 363 394). New York: Wiley.
- Brown, D. W., & Konrad, A. M. (2001). Granovetter was right: The importance of weak ties to a contemporary job search. *Group and Organization Management*, 26, 434–462.
- Burt, R. (1992). *Structural holes*. Cambridge, MA: Harvard University Press.
- Burt, R. (2001). Bandwidth and echo: Trust, information and gossip in social networks. In A. Casella & J. E. Rauch (Eds.), Networks and markets: Contributions from economics and sociology. New York: Russell Sage Foundation.
- Burt, R. (2004). Structural holes and good ideas. *American Journal of Sociology*, 110, 349 399.
- Cacioppo, J. T., Ernst, J. M., Burleson, M. H., McClintock, M. K., Malarkey, W. B., Hawkley, L. C., et al. (2000). Lonely traits and concommitant physiological processes: The MacArthur social neuroscience studies. *International Journal of Psychophysiology*, 35, 143–154.
- Cannuscio, C. C., Colditz, G. A., Rimm, E. B., Berkman, L. F., Jones, C. P., & Kawachi, I. (2004). Employment status, social ties, and caregivers' mental health. *Social Science and Medicine*, *58*, 1247–1256.
- Carrington, C. (1999). No place like home: Relationships and family life among lesbians and gay men. Chicago: University of Chicago Press.
- Carstensen, L. (2006). The influence of a sense of time on human development. *Science*, 312, 1913 1915.
- Carstensen, L. L., Issacowitz, D. M., & Charles, S. T. (1999). Taking time seriously: A theory of socioemotional selectivity. *American Psychologist*, 54, 165–181.
- Charles, S. T., & Piazza, J. R. (2007). Memories of social interactions: Age differences in emotional intensity. *Psychology and Aging*, 22, 300–309.
- Chen, S., Boucher, H., & Tapias, M. (2006). The relational self revealed: Integrative conceptualization and implications for interpersonal life. *Psychological Bulletin*, 132, 151–179.
- Christiansen, M. H., & Kirby, S. (2003). Language evolution: Consensus and controversy. *Trends in Cognitive Science*, 7, 300–307.
- Cohen, S., Doyle, W. J., Skoner, D. P., Rabin, B. S., & Gwaltney, J. M., Jr. (1997). Social ties and susceptibility to the common cold. *Journal of the American Medical Association*, 277, 1940 – 1944.
- Cohen, S., & Lemay, E. (2007). Why would social networks be linked to affect and health practices? *Health Psychology*, 26, 410–417.
- Cooley, C. (1902). *Human nature and the social order*. New York: Scribner's Sons.
- Cowen, E. L. (1982). Help is where you find it: Four informal helping groups. *American Psychologist*, 37, 385–395.
- Crouter, A. C., & Bumpus, M. F. (2001). Linking parents' work stress to child and adolescent

- psychological adjustment. *Current Directions in Psychological Science*, 10, 156–159.
- DeVault, M. L. (2000). Producing family time: Practices of leisure activity beyond the home. *Qualitative Sociology*, 23, 485–503.
- Dugger, C. W. (2006, April 30). Mothers of Nepal vanquish a killer of children. *New York Times*.
- Dunbar, R. I. M. (1992). Neocortex size as a constraint on group size in primates. *Journal of Human Evolution*, 20, 469–493.
- Dunbar, R. I. M. (1997). The monkey's defense alliance. *Nature*, *386*, 555–557.
- Dunbar, R. I. M. (2001). Brains on two legs: Group size and the evolution of intelligence. In F. B. de Waal (Ed.), *Tree of origin: What primate behavior can tell us about human social evolution* (pp. 173–191). Cambridge, MA: Harvard University Press.
- Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook "friends": Social capital and college students' use of online social network sites. *Journal of Computer-Mediated Technology*, 12, 1143–1168.
- Erickson, B. H. (1996). Culture, class, and connections. *American Journal of Sociology*, 102, 217–251.
- Feld, S. L., Suitor, J. J., & Hoegh, J. G. (2007). Describing changes in personal networks over time. *Field Methods*, 19, 218–236.
- Fingerman, K. L. (2004). The consequential stranger: Peripheral ties across the life span. In F. Lang & K. L. Fingerman (Eds.), *Growing together: Personal relationships across the life span* (pp. 183–209). New York: Cambridge University Press.
- Fingerman, K. L., & Bermann, E. (2000). Applications of family systems theory to the study of adulthood. *International Journal of Aging and Human Development*, 51, 5–29.
- Fingerman, K. L., Buckser, A., & Turiano, N. A. (2009). Holidays and relationships. In H. T. Reis & S. K. Sprecher (Eds.), *Encyclopedia of human relationships*. Thousand Oaks, CA: Sage.
- Fingerman, K. L., & Griffiths, P. C. (1999). Season's greetings: Adults' social contact at the holiday season. *Psychology and Aging*, *14*, 192–205.
- Fingerman, K. L., & Hay, E. L. (2002). Searching under the streetlight? Age biases in the personal and family relationships literature. *Personal Relationships*, *9*, 415–433.
- Fingerman, K. L., Hay, E. L., & Birditt, K. S. (2004). The best of ties, the worst of ties: Close, problematic, and ambivalent relationships across the lifespan. *Journal of Marriage and Family*, 66, 792–808.
- Fingerman, K. L., Miller, L., & Seidel, A. J. (2009).Functions families serve in old age. In S. Qualls & S. Zarit (Eds.), *Aging families and caregiving:*

- A clinician's guide to research, practice, and technology. New York: Wiley.
- Fiori, K. L., Antonucci, T. C., & Cortina, K. S. (2006). Social network typlogies and mental health among older adults. *Journal of Gerontology: Psychological Sciences*, 61B, P25 – P32.
- Fischer, C. S. (2005). Bowling alone: What's the score? *Social Networks*, 27, 155–167.
- Fletcher, G. J., Simpson, J. A., & Thomas, G. (2000). The measurement of perceived relationship quality components: A confirmatory factor analytic approach. *Personality and Social Psychology Bulletin*, 26, 340–354.
- Foley, M. W., & Edwards, B. (1998). Beyond Tocqueville: Civil society and social capital in comparative perspective. *American Behavioral Scientist*, 42, 5–20.
- Fratiglioni, L., Wang, H., Ericsson, K., Maytan, M., & Winblad, B. (2000). Influence of social network on occurrence of dementia: A community based longitudinal study. *Lancet*, 355, 1315–1319.
- Fung, H. H., & Carstensen, L. L (2006). Goals change when life's fragility is primed: Lessons learned from older adults, the September 11 attacks, and SARS. Social Cognition, 24, 248–278.
- Fung, H. H., Carstensen, L. L., & Lutz, A. M. (1999). Influence of time on social preferences: Implications for life-span development. *Psychology and Aging*, 14, 595–604.
- Giddens, A. (1990). *The consequences of modernity*. Stanford, CA: Stanford University Press.
- Goffman, E. (1959). The presentation of self in everyday life. Garden City, NH: Anchor.
- Granovetter, M. S. (1973). The strength of weak ties. *American Journal of Sociology*, 78, 1360 1380.
- Grzywacz, J. G., & Marks, N. F. (2000). Reconceptualizing the work-family interface: An ecological perspective on the correlates of positive and negative spillover between work and family. *Journal of Occupational Health*, 5, 111–126.
- Helms, H., Crouter, A. C., & McHale, S. M. (2003). Marital quality and spouses' marriage work with close friend and each other. *Journal of Marriage* and Family, 63, 963 – 977.
- Hogan, B., Carrasco, J. A., & Wellman, B. (2007). Visualizing personal networks: Working with participant-aided sociograms. *Field Methods*, 19, 116–144.
- Horne, C., McIlwaine, M. K., & Taylor, K. A. (2005).
 Civility and order: Adult social control of children in public places. In C. Morrill, D. A. Snow, & C. H. White, (Eds.), *Together alone: Personal relationships in public places* (pp. 181–200).
 Berkeley: University of California Press.
- Hulbert, A. (2003). Raising America: Experts, parents, and a century of advice about children. New York: Knopf.
- Is Facebook growing up too fast? (2009). New York Times. Retrieved April 1, 2009, from http://www.

- nytimes.com/2009/03/29/technology/internet/29face.html?em
- Jacobs, J. A., & Gerson, K. (2004). The time divide: Work, family, and gender inequality. Cambridge, MA: Harvard University Press.
- Jarrett, R. (1999). Successful parenting in high-risk neighborhoods. *The Future of Children*, 9, 45 50.
- Jarrett, R. L., Sullivan, P. J., & Watkins, N. D. (2005). Developing social capital through participation in organized youth programs: Qualitative insights from three programs. *Journal of Community Psychology*, 33, 41–45.
- Kahneman, D., Krueger, A. B., Schkade, D. A., Schwartz, N., & Stone, A. A. (2004). A survey method for characterizing daily life experience: The day reconstruction method. *Science*, 306, 1776–1780.
- Killworth, P. D., Johnsen, E. C., Bernard, H. R., Shelley, G. A., & McCarty, C. (1990). Estimating the size of personal networks. *Social Networks*, *12*, 289–312.
- Klein, R. C. A., & Milardo, R. M. (2000). The social context of couple conflict: Support and criticism from informal third parties. *Journal of Social and Personal Relationships*, 17, 618–637.
- Knapp, M. L., & Vangelisti, A. L. (2000). *Interpersonal communication and human relationships* (4th ed.). Boston: Allyn & Bacon.
- Lang, F. R., Staudinger, U. M., & Carstensen, L. L. (1998). Perspectives on socioemotional selectivity in late life: How personality and social context do (and do not) make a difference. *Journals* of Gerontology: Psychological Sciences, 53B, P21-P30.
- Larson, R. W., Wilson, S., Brown, B. B., Furstenberg, F. F., & Verma, S. (2002). Changes in adolescents' interpersonal experiences: Are they being prepared for adult relationships in the twenty-first century? *Journal of Research on Adolescence*, 12, 31–68.
- Lin, N. (2001). Social capital: A theory of social structure and action. Cambridge, UK: Cambridge University Press.
- Litwin, H., & Laundau, R. (2000). Social network type and social support among the old-old. *Journal of Aging Studies*, *14*, 213 228.
- Litwin, H., & Shiovitz-Ezra, S. (2006a). Network type and mortality risk in later life. *Gerontologist*, 46, 735-743.
- Litwin, H., & Shiovitz-Ezra, S. (2006b). The association between activity and wellbeing in later life: What really matters? *Ageing and Society*, 26, 225–242.
- Locke, K. D. (2003). Status and solidarity in social comparison: Agentic and communal values and vertical and horizontal directions. *Journal* of *Personality and Social Psychology*, 84, 619–631.

- Lofland, L. H. (1995). Social interaction: Continuities and complexities in the study of nonintimate sociality. In K. S. Cook, G. A. Fine, & J. S. House (Eds.), Sociological perspectives on social psychology. Boston: Allyn & Bacon.
- Lopez-Sintas, J., Garcia-Alvarez, M. E., & Filimon, N. (2008). Scale and periodicities of recorded music consumption: Reconciling Bourdieu's theory of taste with facts. Sociological Review, 56, 78-101.
- Lovden, M., Ghisletta, P., & Lindenberger, U. (2005). Social participation attenuates decline in perceptual speed in old and very old age. *Psychology and Aging*, 20, 423–434.
- Mancini, J. A., & Blieszner, R. (1992). Social provisions in adulthood: Concept and measurement in close relationships. *Journals of Gerontology*, 47, 14–20.
- Marks, S. R. (1998). The gendered contexts of inclusive intimacy: The Hawthorne women at work and home. In R. G. Adams & G. Allan (Eds.), *Placing friendship in context* (pp. 43–70). New York: Cambridge University Press.
- Marsden, P. V., & Campbell, K. E. (1984). Measuring tie strength. *Social Forces*, 63, 482 501.
- Marsiglio, W. & Scanzoni, W. H. (1995). Families and friendships: Applying the sociological imagination. New York: Harper Collins.
- Maruta, T., Colligan, R. C., Malinchoc, M., & Offord, K. P. (2000). Optimists vs. pessimists: Survival rate among medical patients over a 30-year period. *Mayo Clinic Proceedings*, 75, 140–143.
- McPherson, M., Smith-Lovin, L., & Brashears, M. E. (2006). Social isolation in America: Changes in core discussion networks over two decades. *American Sociological Review*, 71, 353-375.
- Milardo, R. M. (1989). Theoretical and methodological issues in the identification of the social networks of spouses. *Journal of Marriage and the Family*, 51, 165–174.
- Milardo, R. M. (2005). Generative uncle and nephew relationships. *Journal of Marriage and Family*, 67, 1226–1236.
- Milardo, R. M., Helms, H. M., & Marks, S. R. (2005). Social capitalization in personal relationships. Paper presented at the Theory Construction and Research Methodology Workshop, the annual meeting of the National Council on Family, Phoenix, AZ.
- Morgan, D. L. (1989). Adjusting to widowhood. *The Gerontologist*, 29, 101–107.
- Morgan, D. L., Neal, M. B., & Carder, P. (1996). The stability of core and peripheral networks over time. *Social Networks*, 19, 9–25.
- Morrill, C., Snow, D. A., & White, C. H. (Eds.). (2005). Together alone: Personal relationships in public places. Berkeley: University of California Press.

- Pescosolido, B., & Rubin, B. (2000). The web of group affiliations revisited: Social life, post-modernism, and sociology. *American Sociological Review*, 65, 52–76
- Pew Internet & American Life Project. (2008).

 Demographics of Internet users OctoberDecember 2007. Retrieved April 4, 2008, from:
 http://www.pewinternet.org/trends/User_Demo_
 2.15.08.htm
- Pinker, S. (2004). Language as an adaptation to the cognitive niche. In D. T. Kenrick & C. L. Luce (Eds.), *The functional mind: Readings in evolutionary psychology* (pp. 139–156). Auckland, New Zealand: Pearson Education.
- Portes, A. (1998). Social capital: Its origins and applications in modern sociology. *Annual Review of Sociology*, 24, 1–24.
- Putnam, R. D. (2000). *Bowling alone: The collapse* and revival of American community. New York: Simon and Schuster.
- Putnam, R. D. (2007). E pluribus unum: Diversity and community in the twenty-first century: The Johan Skytte Prize Lecture. *Scandinavian Political Studies*, *30*, 137–174.
- Rafaeli, A., & Sutton, R. I. (1987). Expression of emotion as part of the work role. *Academy of Management Review*, 12, 23–27.
- Reis, H. T., & Aron, A. (2008). Love: What is it, why does it matter, and how does it operate? *Perspectives on Psychological Science*, 3, 80–86.
- Repetti, R. (1993). Short-term effects of occupational stressors on daily mood and health complaints. *Health Psychology*, 12, 125–131.
- Repetti, R. (1994). Short-term and long-term processes linking job stressors to father-child interaction. *Social Development*, 3, 1–15.
- Rubin, Z. (1976). Naturalistic studies of self disclosure. *Personality and Social Psychology Bulletin*, 2, 260–263.
- Russell, D., Cutrona, C. E., Jayne, R., & Yurko, K. (1984). Social and emotional loneliness: An examination of Weiss's typology of loneliness. *Journal of Personality and Social Psychology*, 46, 1313–1321.
- Schulz, R., & Beach, S. R. (1999). Caregiving as a risk factor for mortality: The Caregiver Health Effects Study. *Journal of the American Medical Association*, 282, 2215–2219.
- Sedikides, C., & Brewer, M. (Eds.). (2001). *Individual* self, relational self, collective self. New York: Taylor & Francis.
- Seeman, T. E., Lusignolo, T. M., Albert, M., & Berkman, L. (2001). Social relationships, social support, and patterns of cognitive aging in healthy, high-functioning older adults: MacArthur Studies of Successful Aging. *Health Psychology*, 20, 243-255.
- Sloan, M. M. (2007). The "real self" and inauthenticity: The importance of self-concept anchorage

- for emotional experiences in the workplace. *Social Psychology Quarterly*, 70, 305 318.
- Sorensen, G. Stoddard, A. M., Dubowitz, T., Barbeau, E. M., Bigby, J. Emmons, K. M., et al. (2007). The influence of social context on changes in fruit and vegetable consumption: Results of the health directions study. *American Journal of Public Health*, 97, 1216–1227.
- Story, L. B., & Repetti, R. (2006). Daily occupational stressors and marital behavior. *Journal of Family Psychology*, 20, 690 – 700.
- Suitor, J., & Keeton, S. (1997). Once a friend, always a friend? Effects of homophily on women's support networks across a decade. *Social Networks*, 19, 51–62.
- Suler, J. (2004). The online disinhibition effect. *CyberPsychology and Behavior*, 7, 321–326.
- Suomi, S. J. (2005). Mother-infant attachment, peer relationships, and the development of social networks in rhesus monkeys. *Human Development*, 48, 67–79.
- Thoits, P. (2003). Personal agency in the accumulation of multiple role-identities. In P. Burke, T. Owens, R. Serpe, & P. Thoits (Eds.), *Advances in identity theory and research* (pp. 179–194). New York: Kluwer Academic/Plenum Publishers.
- Toro, P. E. (1986). A comparison of natural and profession help. *American Journal of Community Psychology*, *14*, 147–159.
- Troll, L. E. (1994). Family embedded vs. family deprived oldest old adults: A study of contrasts. *International Journal of Aging and Human Development*, 38, 51–63.
- Uehara, E. S. (1994). The influence of the social network's "second-order zone" on social support mobilization: A case example. *Journal of Social and Personal Relationships*, 11, 277 294.
- Van der Lippe, T., Tijdens, K., & de Ruijter, E. D. (2004). Outsourcing of domestic tasks and time-saving effects. *Journal of Family Issues*, 25, 216–240.
- Van Liempt, I., & Doomernik, J. (2006). Migrant's agency in the smuggling process: The perspectives

- of smuggled migrants in the Netherlands. *International Migration*, 44, 166–191.
- Wager, N., Fieldman, G., & Hussey, T. (2003). The effect on ambulatory blood pressure of working under favourably and unfavourably perceived supervisors. *Occupational Environmental Medicine*, 60, 468–474.
- Webster, P. S., & Herzog, R. A. (1995). Effects of parental divorce and memories of family problems on relationships between adult children and their parents. *Journal of Gerontology: Social Sciences*, 50, S24 – S34.
- Weiss, R. S. (1974). The provisions of social relationships. In Z. Rubin (Ed.), *Doing unto others* (pp. 17–26). Englewood Cliffs, NJ: Prentice-Hall.
- Wellman, B. (2007). The network is personal. *Social Networks*, 29, 349–356.
- Wenger, G. C. (1997). Social networks and the prediction of elderly people at risk. *Aging and Mental Health*. 1, 311–320.
- Wheeler, L., & Miyake, K. (1992). Social comparison in everday life. *Journal of Personality and Social Psychology*, 62, 760 – 773.
- Widmer, E. (2006). Who are my family members? Bridging and bonding social capital in family configurations. *Journal of Social and Personal Relationships*, 23, 979–998.
- Williams, C. S. (2006). Inside toyland: Working, shopping, and social inequality. Berkeley: University of California Press.
- Wireman, P. (1984). *Urban neighborhoods, networks, and families*. Lexington, MA: Lexington Books.
- Yakubovich, V. (2005). Weak ties, information, and influence: How workers find jobs in a local Russian labor market. *American Sociological Review*, 70, 408–421.
- Ybarra, O., Burnstein, E., Winkielman, P., Keller, M. C., Manis, M., Chan, E., et al.. (2008). Mental exercising through simple socializing: Social interaction promotes general cognitive functioning. *Social Psychology Bulletin*, 34, 248–259.