MULTIPLYX EXCHANGE RELATIONS

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ABSTRACT

A multiplex relation occurs when actors share different roles, actions, or affiliations that overlap in a relationship, such as co-workers who are also friends outside of work. Although multiplex relations are as varied as they are pervasive and often problematic, we know surprisingly little about when, under what circumstances, and exactly how overlapping ties affect social relations. Do they strengthen or weaken relationships? When do relationships become multiplex? How do they affect networks at large? In this chapter, we review notable studies that exist on this topic and suggest key questions and issues for future research. Our goal in particular is to suggest how exchange theory could contribute to these efforts.

A friendship founded on business is a good deal better than a business founded on friendship.

– John D. Rockefeller

Don’t think of him as a Republican. Think of him as the man I love, and if that doesn’t work, think of him as the man who can crush you.

– Maria Shriver

Luke, I am your father.

– Darth Vader
From siblings running a business together to business associates entertaining clients on the golf course, and spouses belonging to different political parties to fathers who are mortal enemies, multiplex relations are as varied as they are pervasive. Multiplex relations occur when individuals share "multiple bases for interaction" with each other (Verbrugge, 1979, p. 1287; Marsden & Campbell, 1984; Wasserman & Faust, 1994), such as when the actors in a relationship play different roles (Ibarra, 1995; Zelizer, 2005), maintain different affiliations (Wheeldon, 1969), or engage in different types of activities and exchanges (Kapferer, 1969).

These overlapping ties create a "coexistence of different normative elements in a social relationship" (Gluckman, 1962; also Foa & Foa, 1980; Clark & Mills, 1979), which can solidify or strain the relationship or alter the nature of the relationship altogether. On the one hand, it is commonly assumed that people enjoy thicker, stronger, and more durable relations when they share multiple ties to one another (Marsden & Campbell, 1984; Coleman, 1988; Hardin, 2002). The world of business is particularly rife with stories of weekend golf and extravagant wining-and-dining to build client relations. On the other hand, however, we are all too familiar with cautionary tales about mixing private and professional affairs. The tension that arises from incompatible norms can strain relationships by causing role conflict, miscommunication, or misalignment of mutual interests and expectations (Ingram & Zou, 2008).

The trials and tribulations of mixing business and pleasure, teammates and rivals, or friends and lovers notwithstanding, we know surprisingly little about when, under what circumstances, and exactly how overlapping ties affect social relations. To date, research on multiplex relations has been largely correlational or descriptive, with little attention to the causal processes underlying multiplex relations: Do overlapping ties affect social relations? When do they strengthen or weaken relationships? When do relationships become multiplex?

Our goal in this chapter is to suggest key questions and an agenda for leveraging theoretical and methodological tools of microsociology and groups research to advance our understanding of multiplex relations. To this end, the remainder of the chapter is organized as follows. First, we discuss why more scholarly attention to multiplex relations is needed. Second, we discuss in greater detail what we still do not know about multiplex relations and what questions remain unanswered. Finally, we conclude by discussing how exchange theory can contribute to future research on multiplex relations.

We draw our inspiration for this chapter from Ingram and Zou (2008), who call for a more focused research program on multiplex relations in organizational contexts. Perhaps more than other types of multiplex relations, they argue, business friendships present an uneasy tension between the rational pursuit of instrumental goals and sharing affective ties. Our agenda in this chapter differs in two ways. First, whereas Ingram and Zou (2008) propose a compelling agenda for studying multiplex relations in the context of business and organizational life, our goal is to make a case for abstracting away the context to unpack the causal mechanisms underlying the formation of multiplex relations and their consequences for social relations and networks at large. Second, we note that business friendship represents only one type of multiplex relations, one in which affective and instrumental ties intermingle. However, relations can be multiplex on the basis of two instrumental ties or two affective ties if they introduce different norms of interaction (e.g., a parent and child who simultaneously think of themselves as close friends). Thus, without discounting the case for business friendship, we argue in this chapter that a richer understanding of multiplex relations requires a deeper level of analysis to zero in the causal and dynamic processes underlying multiplexity and broadening the scope of analysis beyond business contexts.

**WHAT ARE MULTIPLEX RELATIONS?**

Following Verbrugge (1979, p. 1287), we use the term multiplexity to denote overlapping roles, actions, and affiliations within a relationship. Roles, actions, and affiliations define, and are defined by, different normative contexts of interaction. This definition distinguishes multiplex relations from repeated interactions. Although multiplex relations necessarily involve repeated interactions, merely repeating interactions does not constitute multiplex relations if the actors interact on the basis of the same roles, actions, or affiliations in every instance or on the basis of different roles, actions, and affiliations that do not overlap in time and space. Becoming friends with a co-worker after finishing a project together without sharing professional ties again is not a multiplex relationship in the full sense of its definition if the friendship and the business ties do not overlap. In other words, adjusting to different norms of interaction as role relations change is not the same as managing multiple norms of interaction simultaneously. An example of the latter is co-workers who stop working together to pursue a romantic relationship. In this case, the couple no longer interacts with each other as lovers and co-workers at the same time.
It is also important to note that multiplex relations can exist between people as well as organizations. Examples of multiplex relations between firms include multiple, overlapping interpersonal ties across upper echelons of organizations (e.g., interlocking directorates; Haunschild & Beckman, 1998), multiple interorganizational ties in which firms compete or cooperate in various functional areas (Powell, White, Koput, & Owen-Smith, 2005; Lomi & Pattison, 2006; Westphal, Gulati, & Shortell, 1997), or combinations of both (e.g., Burt, 1980; Beckman & Haunschild, 2002; Gulati & Westphal, 1999).

In this chapter, we focus on relations in which actual human decision makers are directly implicated, consistent with the key idea that multiplex relations invoke “different normative elements” (Gluckman, 1962). Thus, we include research on interfirm relations that are based on personal connections, such as board interlocks. We mention research on interfirm relations that do not implicate interpersonal relations very selectively, only when it explicitly discusses the concept of multiplexity. We acknowledge that how ties with different relational norms overlap in multiplex relations between firms as opposed to between human actors is a critical question for future research.

WHY SHOULD MULTIPLEX RELATIONS BE STUDIED?

Social scientists in general and sociologists in particular have long shown great interest in various manifestations of multiplex relations, though typically in the service of other research purposes. For instance, within networks research, multiple ties and networks are often sampled to map the network more completely (Marin & Hampton, 2007). Johnson and Miller (1980) note in their study of Alaska fisherman networks that measuring any single network (i.e., kinship, economic exchange or co-residence) alone will not accurately capture the social structure of the community. Similarly, Gould (1991) notes that the social movement that led to the Paris Commune could not be characterized adequately without having information on multiple types of ties. Others have studied multiplex relations only insofar as they have measurable consequences for the focal individuals or organizations, such as their economic performance (Ingram & Roberts, 2000; Valley, Neale, & Mannix, 1995a; Rangan & Sengul, 2009), antisocial behavior (Brass, Butterfield, & Skaggs, 1998; Krohn, Massey, & Zielinski, 1988), or organizational stability (Stern, 1979; Human & Provan, 2000). Very few studies so far have focused explicitly on multiplex relations themselves or the dynamics of interactions between actors who share overlapping ties as dependent variables (e.g., Uzzi, 1997; Lazega & Pattison, 1999; Lomi & Pattison, 2006; Lee & Monge, 2009).

The Challenges of Multiplexity in Everyday Life

We suggest that multiplex relations warrant greater attention in and of themselves for several reasons. First, aside from academic debates and as a matter of practical and personal concern, people care profoundly about multiplex relations, both about their own and others. Thus begins Zelizer (2005, p. 1) in The Purchase of Intimacy:

All of us sometimes gobble up the details of a famous couple’s divorce settlement, worry about whether certain children are suffering from their parents’ profligate spending, become indignant when someone close to us fails to meet important economic obligations, or complain about proposals to cut funding for day-care centers.

From mundane moments of ordinary life to those that threaten our very sense of social identity or economic welfare, economic exchanges and intimate relationships frequently intertwine in ways that complicate our decisions and their consequences.

Nowhere, however, are the challenges of multiplex relations more apparent than in business (Ingram & Zou, 2008). More than ever, “people try very hard to draw a firm line between the people for whom they have genuine affection and those with whom they’re involved professionally... People wonder, would they be going to the ball game with me if we weren’t doing business? Do they care about me or is it reflecting some economic interest?” (Ingram quoted in Columbia Ideas @ Work 2009; http://www4.gsb.columbia.edu/ideash Atwork/feature/723969/Business+Friendships). Implicit in such concerns is uncertainty and anxiety surrounding the true motives of those with whom we share multiplex relations. Entrepreneurs are particularly aware of both the necessity and the inevitability of crossing professional and personal boundaries to connect with people who can provide valuable resources and support and the complications such ties can create (Dubini & Aldrich, 1991). A regular feature in INC, a popular periodical for young entrepreneurs, is a monthly column entitled “Balancing Acts” covering topics and anecdotes on managing work-family boundaries.

One apparent reason why we are concerned about managing overlapping ties is that multiplex relations are ubiquitous, forcing us to constantly
negotiate the challenges they present. Admittedly, there is growing evidence that we, at least in the United States, are becoming more isolated and fragmented as members of the society. According to Putnam (2000), Americans are increasingly less likely to be members of voluntary organizations and local clubs. And according to McPherson, Smith-Lovin, and Brashears (2006), the average number of confidants that Americans maintain for personal or intimate conversations has declined, from roughly 3 in 1985 to 2 today, and the modal number of confidants has decreased from 3 to 0. Indeed, Smith-Lovin (2007) reports that only 6 percent of the general population is connected to no-kin confidants through multiple ties, whereas 58 percent of spouses have no other overlapping ties with each other outside of their marital ties.

These trends notwithstanding, multiplex relations remain pervasive outside of very close relationships. Ironically, the same forces of increasing specialization and diversification that isolate us from each other in today’s complex society can also create more interdependencies and intersections where disparate domains collide and converge to create overlapping roles and ties. The increasing significance of organizational life in the contemporary society in particular has done much to blur the boundaries between the public and private sphere (Kacperczyk, Sanchez-Burks, & Baker, 2009). At work, organizations are taking down bureaucratic walls and creating flatter, more decentralized structures to promote richer social interactions among employees. Longer work hours also mean that people are more likely to form social relations within the confines of their work (Verbrugge, 1979).

Additionally, advances in communication technology have significantly reduced the cost of creating and maintaining relationships while opening up new frontiers of interaction on the Internet. Through cell phone, email, and social networking sites, it is increasingly easier to befriend coworkers, clients, and superiors outside of professional contexts. At home, work–family boundaries are disappearing at an accelerating pace with the promulgation of ubiquitous computing technology that allows work to follow us home and enables us to work from home.

At the same time, greater opportunities to form multiplex relations pose considerable challenges. Should one actually befriend coworkers and clients, or do such relations compromise our professional goals? Should spouses start a business together, or are existing dynamics likely to put too great a strain on the relationship? Questions such as these point to another compelling reason why people are wary of multiplex relations: we know relatively little about how overlapping ties actually affect our relationships, and in particular, whether they might strengthen or weaken them.

It is often assumed, both in networks research and in anecdotes, that multiplex relations are strong relations (Kapferer, 1969; Brass et al., 1998; Marsden & Campbell, 1984). The intuition is simple: when actors share multiple bases of interaction, they are more likely to share information across domains, exchange resources more frequently, and withstand external shocks to the relationship (Coleman, 1988; Ibarra, 1993; Uzzi, 1996, 1997). Multiplex relations are assumed to be particularly strong if personal or affective ties overlap with professional ties, imbuing instrumental exchange with symbolic or expressive value above and beyond the tangible value of resources changing hands. The idea of “thick” relationships (Hardin, 2002) dovetails with the image of relationships bound by multiple threads of connections. Similar views have been expressed by scholars of “socio-economics,” who espoused the notion that multiplex relations might not be stronger necessarily, but are seamlessly integrated and unproblematic inasmuch as they are governed by the unitary logic of rational action (e.g., Becker, 1976). Beyond interpersonal relations, research on interfirm relations has demonstrated that board interlocks, alliances, CEO association memberships, and investment ties can reinforce each other. For example, Beckman and Haunschild (2002) find evidence that strategic alliances and CEO association memberships reinforce interlocking ties to enhance learning and transfer of complex acquisition knowledge. The more multiplex relations a firm possess with its network partners, the lower the price that the firm paid for its acquisitions.

An important counterpoint to these views is the observation that multiplex relations are more likely than simplex relations to create conflicts of interest and expectations that weaken relationships. Managing overlapping ties often requires reconciling conflicting role expectations and demands that arise from “the co-occurrence of different normative elements” (Verbrugge, 1979) in overlapping ties. For instance, research by Clark (1984) demonstrates that affective and instrumental ties (what she terms communal versus exchange relations) are governed by different norms about explicit record keeping to keep track of contributions and efforts to joint tasks. Paul Joseph, an entrepreneur, describes similar sentiments in an interview about starting a business with a friend:

The adage about doing business with your friends is something we laughed at when we first got started, but I think two years into running a very profitable business together it really took its toll... because I was dealing with issues of questioning what we had done right, what we did not do right, who was responsible for the following success, who was
When these normative demands are incompatible with each other, they can undermine the relationship by engendering perceived norm violations and, in some cases, feelings of betrayal (Morris & Moburg, 1993). In particular, where instrumental goals and affective sentiments intersect, “many people feel that [...] economic activity – especially the use of money – degrades intimate relationships, while interpersonal intimacy makes economic activity inefficient” (Zelizer, 2005, p. 1).

Underlying these beliefs is the pervasive assumption that economic action and affective ties are fundamentally incompatible and mutually detrimental and that failing to separate or compartmentalize them carefully leads only to tension and inefficiency. Data from the General Social Survey show that people are hesitant to make large purchases with friends and acquaintances out of similar concerns (DiMaggio & Louch, 1998). These concerns are hardly without empirical or anecdotal evidence. Chan (2009) finds that Chinese life insurance sales agents initially sold their products to close friends and relatives through high-trust relations when the idea of life insurance was relatively novel in China. As the public became more conscious of the economic gains the insurance industry was reaping, however, agents were forced to turn to moderate and weak ties for sales. Baker and Nelson (2005) find that newly founded small businesses grow faster if they avoid trading with their relatives and friends. The reason is that dealing with relatives and friends constrains the entrepreneur’s ability to pursue margin or migrate from poorer to richer client bases. Growth potential is restricted by social entanglement associated with transacting with one’s social contacts. Finally, in social psychology, a stream of research on negotiations has focused on the effects of personal relationships on negotiation processes and outcomes (McGinn, 2006). The primary finding is that personal relations compromise negotiation because people avoid negotiating with close friends or intimate partners.

**Conceptualizing Multiplexity**

These conflicting views and evidences point to a critical gap in our understanding of interpersonal relations. Thus far, *multiplex relations have been under-theorized*. For instance, while researchers have attributed the macro trends in multiplex relations in the United States to a number of plausible factors, such as demographic changes or national culture, their findings have been almost exclusively correlational. Furthermore, there is little research to adjudicate exactly when multiplex relations results in stronger or weaker relations and to specify precisely when and how different normative elements are incompatible. Although the general idea of overlapping ties has been invoked in many research programs and discourses since Adam Smith’s (1759) treatise on moral sentiments, Becker’s (1976) theory of social and economic action, and Granovetter’s (1973) thesis on the strength of ties, our understanding of multiplexity remains largely correlational or descriptive in empirics and typological in theory. Scholars have made numerous distinctions between different types of ties, such as social versus economic exchange (e.g., Blau, 1964) or affective versus instrumental ties (e.g., Zelizer, 2005), yet little work has directly examined how they *interact* with each other. For instance, even while recognizing the importance of different types of exchange, exchange theorists have focused almost exclusively on pure exchange relations – that is, only negotiated exchange or only reciprocal exchange.

Researchers have studied concepts similar to multiplexity, including role conflict, repeated exchange, and governance. However, important conceptual distinctions remain between these concepts and multiplexity, and these lines of research cannot fully account for what is interesting and unique about multiplex relations. For instance, as Verbrugge (1979) notes, multiplexity of relations is a structural property of dyads, not individuals. This distinguishes multiplex relations from role conflict (e.g., Cheek & Briggs, 1982; Leary, Wheeler, & Jenkins, 1986) that occurs around individual actors. Understanding the consequences of assuming multiple roles has been a central topic in sociology. Thiols (1983, 1986) examined how maintaining multiple roles affects psychological well-being, demonstrating that multiple identities and roles, such as spouse and employee, provide various benefits, including resource aggregation, justification for failing to meet certain role expectations, and buffering against role failure, which can help mitigate psychological stress. Zuckerman (1999) extends the idea of multiple-identities to the domain of economic sociology, arguing that for category- or role-spanning actors, the difficulty of managing different roles might outweigh potential advantages. Overlapping roles – particularly roles that do not conform to categories familiar to the audience – can invite confusion and lead to devaluation of the target individual or entity (Phillips & Zuckerman, 2001; Zuckerman, Kim, Ukanwa, & von Rittmann, 2003). In these lines of work, however, the focus of analysis is the role conflict that emerges from individuals playing
incompatible roles across multiple domains. In comparison, multiplex relations concern role conflict that occurs with particular relations between people who share different role relations with each other. This has important implications for both methodological and theoretical reasons. Methodologically, it requires sampling on dyads rather than individuals. Theoretically, it shifts the focus of conceptualization from the individuals to the pattern of interactions between dyads.

Second, multiplexity consists of multiple ties that overlap across time or contexts. As noted, this differentiates multiplex relations from those in which actors share multiple roles, activities, or affiliations over time, but one at a time (i.e., repeated exchange). Becoming friends with a co-worker after finishing a project together without sharing professional relations again is not a multiplex relationship in the full sense of its definition if the friendship and the business relationship do not overlap. In other words, adjusting to different norms of interaction as role relations change is not the same as managing multiple norms of interaction simultaneously.

Finally, the idea of overlapping ties distinguishes multiplexity from parallel research on how formal governance, such as contracts or explicit incentives, affects informal social relations (Bohnet, Frey, & Huck, 2001; Fehr & Rockenbach, 2003; Heyman & Ariely, 2004; Malhotra & Murugiah, 2002; Simpson & Eriksson, 2009; Kuwabara, 2010a). Formal governance is designed to sustain trust and cooperation between people interacting and exchanging under no binding terms. An ironic consequence, however, is that formal governance can crowd out trust and cooperation by signaling distrust or invoking external enforcement to ensure cooperation (Puranam & Vanneste, 2009). Although these observations closely parallel our interest in how the context of interactions (i.e., formal governance) affects the relationship (i.e., cooperation), they must be qualified by the caveat that one's motivation to cooperate is neither a role, activity, nor an affiliation. More to the point, the research on governance also fails to inform explicitly how overlapping contexts of exchange interact with each other to affect the relationship.

WHAT SHOULD BE STUDIED?

Against this backdrop of theoretical and empirical limitations, our hope is to draw attention to the need for greater clarity about the logic underlying how overlapping ties interact with each other. In this section, we identify a number of open questions and issues that we believe are critical for better understanding how multiplexity shapes relational dynamics.

Dynamics and Consequences of Multiplexity in Dyadic Relations

Some of the most intriguing questions about multiplex relations concern the causality of their association with the strength of ties. Since Granovetter (1973), much discourse in sociology has been dominated by the importance of tie strength. On the one hand, strong relations provide a basis for trust, common identity, and reciprocity that facilitate mutual cooperation. On the other hand, strong relations tend to be structurally short, limiting one's access to social capital outside of proximate social circles. This fundamental trade-off has important consequences for job search (e.g., Granovetter, 1973), organizational performance (e.g., Burt, 1992; McPherson, Popielarz, & Drobnic, 1992), educational success (e.g., Morgan & Sorensen, 1999), health and well-being (e.g., Christakis & Fowler, 2007), and numerous other outcomes for individuals, organizations, and communities. Studying how multiplex relations strengthen ties is therefore an important step toward advancing our understanding of how social networks affect individual behavior.

We have noted that multiplex relations have often been presumed to be strong relations in past research. At the same time, there are good reasons to question this assumption. One possibility, for instance, is that the association between multiplexity and tie strength could be a result of reverse causation. In some cases, a strong tie provides the basis for expanding the scope of interactions to other domains, such as when two colleagues who recognize that they enjoy working together become friends outside of professional contexts. Meanwhile, kinship and other types of strong relationships are frequently used to organize economic production or exchange (e.g., Johnson & Miller, 1986). Research has documented that, when the legal system is insufficient to guide social conduct or protect transactions, social relationships are more likely to take a front seat in deciding who transacts with whom (Guthrie, 2001; Guseva & Rona-Tas, 2001). Strong relations allow greater access to in-group connections, ensure trust and cooperation through mutual monitoring, and promote greater relational durability to withstand psychic and normative strains from introducing additional demands and expectations.

Perhaps more likely, however, the causal relationship between multiplex relations and tie strength is dynamic and reciprocal, creating a
self-reinforcing feedback loop in which the relationship becomes stronger and more multiplex. The question then becomes: how do overlapping ties strengthen relationships? For instance, are their effects additive or multiplicative? Does playing golf with a colleague strengthen the relationship more than, ceteris paribus, joining yet another project team with him?

Furthermore, how complementary or compatible do overlapping ties need to be in order to reinforce relationships? While complementary ties are, perhaps by definition, less likely to create strain in the relationship, what remains unstudied is whether they necessarily strengthen relationships the more they overlap. In fact, ties that are too complementary or similar might do little to expand the scope of the interactions and reinforce relationships. Rather, some strain and conflict may be necessary for relationship building. Joint efforts to resolve relational conflicts can build people’s sense of efficacy in their abilities to work together and build relationships (De Dreu & Vliert, 1997; also Lawler, 2001). We can also draw insights from research on small group dynamics, which has shown that a moderate degree of cognitive conflict can enhance group performance by forcing people to rethink problems from different perspectives and arrive at more creative or mutually beneficial solutions (Amason, 1996; De Dreu & Weingart, 2003). This effect is particularly strong when the task involved is nonroutinized (Jehn, 1995, 1997).

Finally, it may sometimes be the case that different types of ties can substitute for each other, creating a negative feedback loop in which adding a new tie “crowds out” or weakens existing ties. If so, overlapping ties might have little or no overall effect on the strength of the relationship. This substitution effect might occur for a number of reasons. Again, consider two colleagues who are also casual friends. Once appointed to the same project team, they might gradually drop their friendship to avoid “mixing work and play” or simply because they spend more time together at work and desire each other’s company outside of work less. Similarly, business partners might refrain from seeking friendship outside of work if they feel that their professional tie is already strong enough and that weekend golf will solidify their relationship only slightly. In organizational theory, Haunschild and Beckman (1998) studied interlock ties and association membership ties of CEOs as alternative sources of information about corporate acquisitions. They reasoned that, because CEO membership association and board interlocks are similar in content, having both creates overlapping ties that are too redundant. Consequently, the study found that CEO membership association “crowds out” the effect of board interlocks in the likelihood of involvement in acquisitions. In an historical example, Padgett and Ansell (1993) contend that the Medici family rose to political power in Renaissance Florence by avoiding multiplex relations to other banking families and only establishing simplex relations of either banking or marital ties to maintain strategic control and flexibility over its political and economic action.

Thus far, there is very little research to tell us a priori when multiplex relations have additive, subtractive, or multiplicative effects on the strength of relationships and other outcome variables. For example, while in some studies multiplex relations of strategic alliances and CEO association memberships are found to complement each other (Beckman & Haunschild, 2002), they also substitute each other in other settings (Haunschild & Beckman, 1998). Meanwhile, in Gould’s (1991) study of the Paris 1871 uprising, the effect of overlapping ties is multiplicative, not additive: while informal (neighborhood) ties alone had no effect on mobilization, formal organization ties (joint enlistment) interacted with neighborhood ties to enhance the solidarity of social movement participants.

In light of the observations above, greater efforts are clearly needed, both in theory and empirics, to move research beyond reporting post hoc correlations to capture the processes underlying the development of relational bonds. Given the range of possible outcomes already shown by disparate bodies of research, we suggest that, instead of asking whether different ties that invoke different relational norms are necessarily beneficial or detrimental to the relationship, a more productive approach might be to consider how actors negotiate and resolve the tension that arises from incompatible norms (Ingram & Zou, 2008). In this view, overlapping ties might strengthen relationships only to the extent that actors can manage conflicts constructively and meaningfully. Understanding this process, in turn, requires investigating on what basis different ties are perceived as compatible, complementary, counter-normative, or merely different.

Besides the theoretical task of specifying when and how multiplex relations take on different effects, the main empirical challenge is collecting data that allow controlling for endogeneity problems to parse out reverse causality and selection biases that are insidious in cross-sectional data. Panel data with information on different types of ties between the same dyads over time will be necessary to investigate these questions. It will also be useful to sample broader measures of relationship strength and relevant mediators. Contemporary exchange theorists have made concerted efforts to examine a wider range of variables beyond objective measures of exchange (e.g., exchange rate or volume) to examine more subjective dimensions of solidarity, which concern actors’ ability to engage in mutually beneficial exchange to produce collective goods (Willer, Borch, & Willer, 2002).
Feelings of trust, regard, and cohesion, for instance, are emergent properties of repeated exchange that reinforce solidarity (Blau, 1964). Although such variables are correlated, they are nevertheless distinct dimensions of solidarity that are differentially affected by different exchange conditions and mediated by different causal pathways, such as perception of conflict, fairness and justice, or satisfaction (Lawler, Thye, & Yoon, 2000; Molm, Takahashi, & Peterson, 2003; Kuwabara, 2010b). In addition to this repertoire of variables, we also note Ingram and Zou's (2008) suggestion to include measures of psychic stress to tap more directly into the difficulty of attending to different normative elements in relations. And lastly, another potentially fruitful avenue is to examine actual communication patterns to see how actors coordinate the logic of exchange or convey empathy and identification (McGinn & Keros, 2002) to resolve conflict between overlapping norms and expectations in “real-time.”

Antecedents of Multiplexity

Another understudied yet critical domain for researchers seeking to better understand multiplex relations is the microdynamics of multiplex relations, specifically what processes—exogenous and endogenous—push relationships to become more multiplex or less multiplex? What motivates people to expand their basis of interaction from simplex to multiplex or to contract multiplex relations toward simplex? What kinds of people and in types of relationships do people prefer multiplex or simplex relations?

At the macrolevel, relationships can change as a direct result of policy changes or socio-structural engineering. Modern organizations are constantly implementing structural changes designed to promote more informal contact among their employees within and across units. Building and facilitating teamwork has become one of the most widely adopted management strategies today's organizations (Staw & Epstein, 2000). For instance, it is now common practice for organizations to sponsor social activities outside of work to promote team-building. Gordon's (1992) study reports that 82 percent of the companies studied facilitate some form of team development activity, and 68 percent of the Fortune 500 firms are using self-organized teams. These management techniques are designed to increase the likelihood of employees interacting in more varied and purportedly productive ways with each other.

Relationships are also shaped profoundly by diffuse forces of the institutional environment. Zelizer (2005) examines the impact of law as an important context in which intimate ties intermix and often collide with formal or professional ties. Across a vast range of cases, from divorce to prostitution and familial disputes to lawsuits between business partners, courts must recognize, and often dictate, how personal relations are to be separated from or reconciled with economic interests and monetary transactions. In contrast, as noted earlier, Smith-Lovin (2007) suggests that the high degrees of differentiation and specialization in modern societies is "thinning" our relationships toward unidimensional, simplex relations, at least in very close and personal circles. In an intriguing historical analysis, Silver (1990) argues that, before the emergence of the market during the Scottish Enlightenment, the Scots did not have a clear concept of "strangers"—people who are neither friends nor enemies, people who could provide instrumental needs without affective exchange. However, the emergence of the market economy gradually led people to pursue economic interests outside of their immediate, close-knit circles and expand their scope of interactions to include unknown others. In turn, the idea of friendship became divorced from instrumental concerns and increasingly laden with affective and symbolic value. Thus, while pursuing economic interests through affective ties was for the most part morally unproblematic in pre-market societies, it became increasingly at odds with both the "iron cage" of rationality that came to pervade modern societies and the very idea of friendship that came to symbolize affective ties.

Sanchez-Burks (2002) offers a similar argument with respect to national culture, showing that people in the United States, for instance, pay less attention to relational and affective cues in the workplace compared to non-work settings. Sanchez-Burks (2002) attributes this finding to Protestant relational ideology in the United States that emphasizes the importance of restricting interpersonal interactions in the workplace and separating the domains of work and leisure.

Morris and colleagues provide further evidence for cultural differences in how people build and use networks (Chua, Morris, & Ingram, 2009; Morris, Podolny, & Ariel, 2000). Morris, Podolny, and Ariel (2000) report that multiplex relations at work are particularly low in the United States compared to China, Germany, or Spain, consistent with Kacperczyk, Sanchez-Burks, and Bake (2010) more recent and more extensive comparisons. Chua et al. (2009) find that Chinese managers are more likely than American counterparts to report higher levels of trust toward others when they share both affective and instrumental ties. Finally, Yamagishi and colleagues (Yamagishi & Yamagishi, 1994; Yamagishi, Cook, & Watabe, 1998; Kuwabara et al., 2008; also Buchan, Croson, & Dawes, 2002) find that Japanese people are more likely
than Americans to trust ingroup members (with whom they share existing ties or common identity) than outgroup members.

At a more micro level, whether relationships become multiplex might also be a function of individual differences in networking motivation, personality, or gender identity. For instance, a stream of research on social networks concerns identifying brokers who bridge multiple social circles that are otherwise disconnected from each other (Burt, 1992). Brokers have been associated with better job performance (e.g., faster job search, higher compensation, and earlier promotion) by virtue of access through their expansive ties to a wider range of information sources as well as gatekeeping positions that confer power and control over resource flows in the network. A critical trade-off is that effective brokering requires adeptly managing divergent role expectations, collecting and disseminating fast information, relaying various resources, and maintaining fragile relationships across disparate circles, all of which can tax the broker’s interpersonal skills and drain his emotional reserve. Brokering without carefully managing relations can therefore backfire. An emerging body of evidence suggests that individuals with high self-monitoring abilities – that is, behavioral and cognitive skills for regulating one’s actions to fit the norms of different social contexts (Snyder, 1974) – are particularly adept at occupying and managing brokering positions in organizations, which in turn affords them greater power, status, and information advantages (Mehra, Kilduff, & Brass, 2001; Flynn, Reagans, Amanatullah, & Ames, 2006). These findings thus suggest that self-monitoring might be an important personality variable linked to the transformation of simplex relations into multiplex relations. A crucial question with respect to multiplexity in particular is whether brokers are also more likely or motivated to maintain multiplex relations (which we elaborate in the next section).

Finally, other lines of research have found that network structures differ as a function of gender (e.g., Brass, 1985; Burt, 1992). Men typically maintain homophilous networks, whereas women establish ties with each other for socioemotional support and ties to men for instrumental resources (Ibarra, 1992, 1993). Moreover, men tend to have more multiplex relations at work than women, because men tend to seek friendship from the same men who can provide them access to organizational resources (Ibarra, 1992). A situational or structural explanation of the observed differences in networks is that women are marginalized from important organizational positions so that they have a narrower range of network choices (Ibarra, 1993). However, it could also be the case that women and minorities seek ties with powerful actors in organizations – often men – for strategic or instrumental reasons. While both exclusionary and inclusionary forces are at play in varying degrees in shaping network structures of men and women (Brass, 1985), a recent study by Stallings (2008) has begun to disentangle the two forces and finds support for greater effects of structural constraints. The study found that women lack multiplex relations with female colleagues largely because of the shortage of senior women who can provide instrumental resources along with socioemotional support. With possible and important implications for understanding differential opportunities for men and women in organizations, further research is needed to understand how different sexes actually experience multiplex relations. Is one sex more likely to benefit from multiplex relations than the other?

**Multiplexity and Network Dynamics**

Beyond the dyad, how do multiplex relations affect or interact with larger network structures? An important measure of network structure is closure (Coleman, 1988). Closed networks are characterized by ties to alters who are connected to each other, creating densely connected cliques in which “a friend of a friend is also a friend.” Dense connections foster trust and cooperation by promoting reciprocity and common identity through mutual monitoring in shared relationships. Open connections, on the other hand, involve ties to alters who are disconnected from each other, creating networks that are rife with opportunities for brokering. Open connections have been associated with numerous instrumental benefits that accrue to those who occupy what Burt (1992) has termed “structural holes.”

How do multiplex relations affect the formation of closed versus open networks? How does network structure affect the formation of multiplexity? On the one hand, overlapping ties might reduce the need to form closed triads if they create strong relations. Conversely, people might be more likely to form multiplex relations in the absence of closed triads that sustain mutual trust and cooperation. On the other hand, closed triads might facilitate the formation of multiplex relations to the extent that actors in closed triads interact more often and share broader bases of exchange with one another.

Lee and Monge (2009) examined these questions empirically, finding that triadic closure does not enhance multiplexity of dyadic relations. However, this result might be attributable to her particular research setting, which was a community of international development organizations in which the formation of collaborative ties on development projects is less organic. An interesting question, therefore, is to look further in other contexts at how
the institutional environment together with the overall network structure impacts the propensity for multiplex relations to occur.

Broadening the scope of analysis to network structures also implicates observers outside of the dyad. As Podolny (2001) colorfully noted, networks are “pipes” that provide conduits for information and resources as well as “prisms” that reflect and signal the status, legitimacy, and identity of actors through their affiliation patterns. An important consideration is in what ways multiplex relations are affected by how they are perceived by others rather than how ties actually overlap in relationships. For instance, do people avoid mixing economic and social exchange because they are perceived to be culturally illegitimate by others (Chan, 2009), or because actors fear confounding professional and personal interests and undermining their relationships?

Measuring Multiplexity

Finally, efforts to address the preceding conceptual issues are likely to fall short in the absence of greater clarity surrounding core methodological issues, such as measurement. For instance, at what level of analysis should overlapping ties be measured? Almost every relationship of some duration is multiplex to some extent, depending on how granularly one measures the relations and how broadly one defines the context of interactions. Some people may view playing golf and playing racquetball as invoking different norms (and hence multiplex) even when involving the same partners. Others might approach business partners and friends with more or less the same set of expectations and standards of conduct. Thus, it may be both impossible and even counter-productive to define what the level of measurement should be across all cases. Nevertheless, we suggest that more concerted efforts are needed to specify at what level of analysis relations should be defined and which overlapping ties are relevant based on theory. To this end, we propose two general objectives for future research.

First, research needs to move beyond simple dichotomies of relations to consider other combinations of relations. Implicitly and explicitly, much of existing research has focused on various distinctions between economic and social exchange, including instrumental versus affective ties (e.g., Granovetter, 1985; Ingram & Roberts, 2000; Zelizer, 2005), tangible versus intangible resources (e.g., Bienstock & Bianchi, 2004; Heyman & Ariely, 2004), self-interest versus regard for others (e.g., Clark & Mills, 1979), specific versus diffuse obligations (Blau, 1964), and, quite literally, economic versus social spheres (e.g., Becker, 1976). While these distinctions are interesting, they draw over stark contrasts that overlook broader possibilities for different types of social ties to combine and intermix in a relationship. Two people can share overlapping ties, both affective-social in content yet each defined by different norms of interaction, such as two Asian-American friends who share both common white and common Asian friends and thus interact in different cultural contexts with each other (Mok, Morris, Benet-Martinez, & Karakitapoglu-Aygun, 2007). Conversely, two people may have overlapping ties that are both relatively instrumental in content, such as two managers’ whose companies compete with each other for market share while simultaneously cooperating to restrict further competition from entering the market (Ingram & Roberts, 2000). Nor need overlapping ties be purely affective or instrumental. It is not uncommon to express affection and gratitude in the context of professional relations. In fact, Lawler and colleagues (Lawler, 1992; Lawler et al., 2000; Lawler & Yoon, 1996) have shown that exchange tasks with ostensibly purely instrumental goals can produce feelings of attachment between actors through repeated interactions.

Second, future research also needs to move beyond typologies to focus more clearly on how relationships actually overlap and how they interact with each other. In particular, how can we measure different normative elements that exist in overlapping ties? Research on multiplex relations typically infers overlapping ties from survey responses or archival data indicating the existence of multiple types of ties between people or organizations. However, simply measuring whether ties overlap leaves open the question of whether and to what extent they are actually compatible or incompatible. For instance, it is unclear whether going to musical activities together is compatible with the norm of parent–child ties (Krohn et al., 1988), and whether repeated buyer–seller ties and board interlocks are operating under compatible logics (Gulati & Sytch, 2007). One potential way to alleviate this concern may be to use attitudinal surveys to directly measure perceived normative tension of various bases of ties, and see how the perception impacts interaction behaviors.

Lastly, to address these issues of definition and measurement, researchers will need to move their focus beyond the structure or patterns of interactions to the content of relations (Emirbayer & Goodwin, 1994; Burt & Schatz, 1985). Increasingly, sociologists are noting the need to bring “the content of social ties back in, particularly culture and meaning that define, realize, and perform the relational content of embeddedness” (Chan, 2009, p. 713). Research on multiplexity should join these efforts by dedicating greater attention to the normative contexts of interaction.
RESEARCH AGENDA FOR EXCHANGE THEORY

The crux of our discussion thus far has been how actors manage multiple bases of interaction that create normative tension or conflicts of interest when ties overlap. Of particular concern is when and in what ways overlapping ties are normatively compatible or incompatible with each other. The science of social relations and networks has yet to come to any adequate terms with the complexity of this pervasive phenomenon. To advance our understanding, we need to broaden the scope of analysis to look beyond affective-instrumental dichotomies while also zeroing in more directly on the processes underlying the interactions of different normative contexts.

Exchange theory is well-poised to contribute to these efforts. Its theoretical focus on different forms of exchange in durable relations with repeated interactions offers a particularly promising point of entry for thinking about the nature of multiplex relations in their varied forms. Its well-developed experimental paradigm offers a number of methodological advantages as well. First and foremost among these is its use of random assignment. As we have elaborated in this chapter, establishing causal effects of multiplex exchange relations is fiendishly difficult. Random assignment to different conditions of exchange or relations will help tease out the effects of endogeneity and self-selection that confound field data. Second, the experimental paradigm has been used over and over in a number of important studies and is methodologically reliable. Exchange theorists have advanced their research programs progressively over the past decades by directly extending studies by one another to isolate variables of theoretical interest and refine their measurements (e.g., Molm, 1995; Willer, 1999; Cook & Cooper, 2003). Third, the experimental paradigm in exchange theory offers ready operationalizations of different types of exchange, which can be combined easily and flexibly to create multiplex relations in laboratories.

Exchange theorists identify four different forms of exchange in particular: reciprocal, negotiated, productive, and generalized (see Lawler, Thye, & Yoon, 2008, and Molm, 1995, for review). The first two forms of exchange are direct exchanges that occur between two or more people who exchange benefits with each other directly. Reciprocal exchange involves unilateral and voluntary acts of giving resources by one actor to another without knowing when, how, or whether the other will reciprocate. Negotiated exchange involves bilateral decisions and agreements to divide resources between two people, often under binding terms of exchange. In comparison, productive exchange and generalized exchange occur at the group level. In productive exchange, individual members decide whether to contribute to

the collective good, which provides benefits to them based on the amount of contributions pooled. In generalized exchange, actors provide benefits to others unilaterally, much as in reciprocal exchange, except the recipients can return benefits to others rather than eventually repaying the giver. The task for future research is to understand how these exchange forms co-occur and overlap within relationships under various conditions. How do they affect the emergence of multiplex relations, and how do they affect relational solidarity in turn?

Over the past decade, social exchange theorists have made concerted efforts to compare how different forms of exchange produce solidarity (Molm; Lawler). So far, their research has largely focused on pure exchange relations, comparing those based solely on one type of exchange to another (Blau, 1964; Ekeh, 1974; Molm, Collett, & Schaefer, 2007; Lawler et al., 2008). However, their experiments can be easily extended to construct multiplex relations by exposing participants to a mix of exchange forms across exchange rounds, and existing measures can be used to provide direct comparisons to past research.

Initial efforts are underway. Kuwabara (2010b) compared trust relations with fixed roles to those with alternating roles. In the fixed-role condition, one person was assigned to the role of the trustee and the other to the trustor for the entire duration of the exchange tasks, while in the alternating-role condition, participants alternated between the roles after each instance of exchange. The latter condition can be viewed as a case of multiplexity based on overlapping roles, even though participants engaged in the same exchange form in every round. The results showed that role multiplexity produces stronger relational bonds than fixed roles.

Cheshire, Gerbasi, and Cook (2010) break new ground by allowing participants to transition from one type of exchange to another, both endogenously and exogenously. They examine the effects of transitioning from one form of exchange to another on trust and cooperation in exchange relations. In their experiment, participants undertake a series of "reciprocal exchanges" with each other in dyads or small networks, followed by a series of "negotiated exchanges." The transitions are exogenous, manipulated by the researchers. The researchers find that the transitions matter: transitioning to binding negotiation can increase or decrease perceptions of trust. When the level of cooperation in the first series of exchanges is high, moving to negotiated exchange decreases trust [consistent with prior research by Molm, Takahashi, and Peterson (2000) that negotiation is more likely to undermine solidarity relative to reciprocity]. However, when the level of cooperation is low, negotiating binding agreements seems to boost trust.
Although such findings are informative, there are reasons to argue that transitioning from one form of exchange to another is different from what is meant by multiplex relations, that is, the co-occurrence of different exchange forms and norms. It is one thing for friends to drop friendship when they become co-workers, but it is quite another for them to remain friends as they continue to work together professionally. This raises important questions for future research in social exchange theory: First, to what extent — and why — might engaging in different types of exchange simultaneously be different from engaging in different types of exchange sequentially, one at a time? Is one a special form of the other, or are they qualitatively different, and how? Transitioning from one form of exchange to another poses challenges of change, that is, adopting new norms and logics of exchange, sometimes by abandoning the older norms. In comparison, multiplex relations create the difficulties of juggling different norms and logics of exchange simultaneously. Moreover, although engaging in different types of exchanges sequentially may be perceived as overlapping activities when brief periods of time exist between transitions, norms of exchange often emerge more gradually. Thus, more direct comparisons between simultaneous and sequential forms of multiplexity are needed to extend Cheshire et al.’s (2010) results to multiplex relations proper.

Another important question for future research in social exchange theory is when and how do simplex relationships become multiplex? Many dyadic relations develop first on the basis of a single form of exchange. Are such relations more likely to become multiplex when they start out as reciprocal exchange relations or negotiated exchange relations? And what are the structural and psychological barriers to relationships expanding from simplex to multiplex, or vice versa?

As already mentioned, a number of studies have examined the existence of reciprocal exchange relations among business partners. A notable example is Ingram and Roberts’ (2000) work on the Sydney hotel industry. As this study notes, reciprocal or noncontractual exchange relations can emerge between business competitors as both influence tactics and sources of efficiency where formal contractual exchange may be cumbersome. To our knowledge, however, little if any research has examined the actual process and dynamics of negotiated exchange relations expanding to include reciprocal exchange.

Negotiations researchers have found that friends are more likely to avoid negotiating than strangers, or reach suboptimal outcomes when they do negotiate, suggesting that people in relationships based on reciprocal exchange have difficulty incorporating negotiated exchange into their repertoire. However, Valley, Neale, and Mannix (1995b) note that this finding may be due to an experimental protocol in which participants are asked to come to the laboratory with a friend to negotiate an artificial scenario, thus comparing real friendship to hypothetical negotiation. The experimental paradigm in exchange theory offers an alternative approach. Although reciprocal exchange tasks in lab settings cannot be directly equated with friendship, they can help capture key aspects of the elemental exchange structures of social relations and how they condition negotiated exchange or the relationship itself in ways that allow more direct comparison between forms of exchange.

It will also be important to look beyond the exchange relation itself to examine what surrounding conditions might lead reciprocal exchange relations to incorporate negotiated exchange. Following Puranam and Vanneste (2009), we suggest three conditions that might lead actors to adopt negotiated exchange: the norm of negotiation, expertise in negotiation, and uncertainty. That is, actors in reciprocal exchange relations may be likely to also engage in negotiation when it is normative to do so, when they have legal or technical expertise to conduct negotiations successfully, and when the exchange task poses high levels of risk or uncertainty about its consequences. Finally, a critical step toward understanding the endogenous processes that mediate the development of solidarity in multiplex exchange relations will be to better specify to how conceptualize and measure normative compatibility between overlapping ties as the basis for how actors perceive the exchange relation. What are the structural features of overlapping exchanges that produce normative tension and conflict? That is, when are two exchange forms or relations perceived to be at odds with each other? One promising idea is to draw on the exchange-theoretic concepts of competition-cooperation (Kelley & Thibaut, 1978), on the one hand, and power-dependence (Emerson, 1976; Cook & Emerson, 1978), on the other hand. The first dimension describes the degree to which the actors’ interests are mutually aligned or opposed. If one actor’s preferred action harms the other, they are in competition; if their preferred actions are the same, they are in cooperation. In between these polar cases are situations in which mixed-motives exist. The second dimension describes the degree to which an actor’s dependence on the other for resources creates power differential or inequality.

Both of these dimensions have been well-theorized to offer a potentially useful framework for understanding two important ways in which relationships are compatible. We suggest that how closely overlapping ties line up on these dimensions at least partially reflects their normative compatibility. In particular, we suggest that relational norms are compatible across overlapping ties if (1) actors have similar power relationships with
each other in both exchange relations/forms and (2) their incentives are mutually aligned. For example, two people share incompatible relations if one has power over the other in one domain (e.g., work), but not the other domain (e.g., home). Similarly, overlapping ties are incompatible if two people are at once competitors and cooperators.

Compatibility is different from Molm et al. (2007) measure of perceived conflict in exchange tasks. Whereas perceived conflict measures actors' subjective feelings about the difficulty of reaching mutually beneficial and satisfactory agreements with each other, compatibility concerns the normative or structural complementarity of overlapping ties. The former describes the exchange task and partner, whereas the latter concerns how different norms of exchange interact in the relationship. Actors might experience high levels of conflict over tasks that are normatively similar or low levels of conflict over tasks that are quite at odds with each other. For instance, a married couple may be able to negotiate and resolve the division of financial responsibilities amicably, yet still feel uncomfortable about negotiating with each other. Thus, measuring conflict alone fails to capture this broader source of tension that actors might experience at the relational level.

CONCLUSION

Although social exchange theory has made significant advances toward understanding exchange relationships based on one type of exchange, many real-life relationships are multiplex, consisting of overlapping roles, norms, and activities. As such, laboratory work alone is ultimately inadequate. A fuller understanding of multiplex relations will emerge only from more concerted efforts to triangulate on the causal processes underlying multiplexity using experiments, mathematical modeling, ethnography, field data, and various other methods. To this end, we hope that our chapter serves as a call to action, motivating future efforts by sociologists and groups researchers of all methodological bends to tackle not only the questions and issues we have raised but also the many others we have surely omitted.

NOTES

1. In this chapter, we refer to a "relationship" to denote the relational structure and "tie" to denote the content or context of interaction, that is, whether two people are connected versus how they are connected. For example, two individuals have a relationship when they share a connection and interact with each other, where the relationship might consist of professional, social, and/or familial ties. Hence, a social relationship is multiplex when two people share multiple, overlapping ties with each other.

2. Exchange forms can overlap across both dyadic and group-based exchanges. For instance, two individuals in a church involved in fund-raising (productive exchange) can become friends (social exchange) on their own terms. In generalized exchange, there is almost always some potential for two actors to engage in reciprocal exchange between themselves. In this chapter, we restrict our discussion to dyads (Verbrugge, 1979) and preclude group-based exchanges, which do not necessarily involve direct exchange relations that overlap between actors.

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Multiplex Exchange Relations

Multiplex Exchange Relations


CORRUPTION AS SOCIAL EXCHANGE

Edward J. Lawler and Lena Hipp

ABSTRACT

This chapter applies social exchange theory to corruption. If two parties exhibit corrupt behaviors, secrecy becomes a new joint good, making the two parties more dependent on each other (an increase in total power). Since no external enforcement mechanisms are available in illicit exchanges, the initial reciprocal exchange pattern shifts toward negotiated or productive forms of exchange. Such forms of exchange, however, tend to leave traces, either because the amount of traded resources increases or the contingencies between the behaviors become more visible to the outside. Using the larger network structure, in which corrupt exchanges are embedded, to deal with the problem of detection also is Jams-faceted. Adding more ties to the exchange increases either the competition between several potential exchange partners (exclusively connected network) or the risk of nonreciprocity and whistle blowing (positively connected network). By showing that illicit relations are inherently unstable, we specify some of the scope conditions of social exchange theory.

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