

# Interdependence Theory

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## ABSTRACT

As one of the classic theories of social psychology, interdependence theory has since its earliest formulation (Thibaut and Kelley, 1959) addressed broad classic themes such as dependence and power, rules and norms, as well as coordination and cooperation. Later, Kelley and Thibaut (1978) provided a more comprehensive statement of the theory which allowed researchers to analyze topics such as attribution and self-presentation, trust and distrust, love and commitment, conflict and communication, and risk and self-regulation. Interdependence theory seeks to capture the essence of social life by advancing a conceptual framework for understanding social interaction. In particular, it identifies the most important characteristics of interpersonal situations via a comprehensive analysis of situation structure, and describes the implications of structure for understanding intrapersonal and interpersonal processes (Kelley et al., 2003). Situation structure matters because it is the interpersonal reality within which motives are activated, toward which cognition is oriented, and around which interaction unfolds. This chapter describes key principles of the theory, and illustrates the utility of an interdependence theoretic analysis via a review of phenomena that we may observe everywhere around us – such as regulatory fit, persistence in the face of dissatisfaction, the basis for understanding generosity, and the ebbs and flows of intergroup relations.

## INTRODUCTION

One of the truly classic theories in the social and behavioral sciences is interdependence theory originally developed by John Thibaut and Harold Kelley in 1959. In the 1998 edition of the *Handbook of Social Psychology*, in his chapter on the historic development of social psychology, Ned Jones made the following prediction about interdependence theory: “Given the elegance and profundity of this analysis ... there is good reason that its impact will be durable” (1998: 30). Now, more than a decade later, it is clear that interdependence theory has influenced generations of scientists for more than 50 years. It is especially interesting to see that it has stimulated research in various domains of social psychology, including research focusing on within-person processes such as affect and cognition, as well as between-person processes such as behavior and interaction in dyads and groups. Since Thibaut and Kelley (1959) and Kelley and Thibaut (1978), interdependence theoretical concepts and principles have been used to analyze group dynamics, power and dependence, social comparison,

conflict and cooperation, attribution and self-presentation, trust and distrust, emotions, love and commitment, coordination and communication, risk and self-regulation, performance and motivation, social development, and neuroscientific models of social interaction (for recent reviews, see Kelley et al., 2003; Reis, 2008; Rusbult and Van Lange, 2003; Van Lange et al., 2007).

The main focus of interdependence theory is on social interaction, a comprehensive concept that captures the basics of human social life, which helps explain why interdependence theory has been used to understand so many themes for so long. After all, interaction is at the heart of where people live their social lives. Many feelings and emotions are rooted in social interactions, and many beliefs and thoughts are about past or future social interactions. For example, whether a close partner expresses understanding for your bad feelings after you have been mistreated by somebody else is essential for how we feel and think about ourselves, and how we feel and think about the partner – which has strong implications how we approach a future interaction situation with the partner (and perhaps other people as well). Typically, social interactions exert strong effects in the laboratory, but outside of the lab where often interactions extend over substantial periods of time, social interactions tend to exert even more dramatic effects on us and our relationships. One can indeed go so far as to claim that social interaction colors nearly every phenomenon studied in the social and behavioral sciences, including mental and physical health, personal dispositions, and cognitive and affective experiences (Reis et al., 2000; Rusbult and Van Lange, 2003).

Generally, we argue that the field of psychology would benefit substantially from a social interaction analysis of human psychology, and suggest that interdependence theory can play an important role in this respect. Interdependence theory is one of the few social psychological theories that provides a comprehensive analysis with a strong orientation toward conceptualizing *interpersonal*

structure and processes (Kelley and Thibaut, 1978; Kelley et al., 2003; Thibaut and Kelley, 1959). Analogous to contemporary physics – where the relations between particles are as meaningful as the particles themselves – in interdependence theory, *between-person* relations are as meaningful as the individuals themselves (Rusbult and Van Lange, 2003). Indeed, concepts such as coordination, trust, cooperation, communication, commitment can only be understood in terms of social interaction, and many of the needs, motives, and processes that receive considerable attention in contemporary social psychology – such as need-to-belong, uncertainty-management, self-regulation – are often oriented in the service of dealing with the threats and opportunities of social interaction.

In this chapter, we outline the key principles of interdependence theory, provide a historical account of its roots and development over the five decades, and outline some prospects for the future. In doing so, we also provide a narrative of major challenges that the founders of interdependence theory (must have) faced, and those that the next generation, along with Hal Kelley, have faced. It will also become clear that interdependence theory is growing while benefiting from the solid foundation (and more) that the fathers of interdependence theory have provided. We conclude by describing broad implications for various social psychological phenomena and applications in several societal domains.

## INTERDEPENDENCE STRUCTURE

Interdependence theory uses two formal tools to represent the outcomes of interaction – matrices and transition lists (Kelley, 1984; Kelley and Thibaut, 1978). The purpose of these formal representations is to precisely specify the character of situation structure – to describe the ways in which people can affect one another's outcomes during the course of interaction. *Interaction* describes two people's (*A* and *B*) needs, thoughts,

motives, and behaviors in relation to one another in the context of the specific interdependence situation ( $S$ ) in which their interaction transpires (Kelley et al., 2003). Expressed formally,  $I = f(S, A, B)$ . To predict what will transpire in an interaction between two persons, we must consider (a) what situation they confront (e.g., are their interests at odds, does one hold greater power?), (b) person  $A$ 's needs, thoughts, and motives with respect to this interaction (i.e., which traits or values are activated, how does he feel about person  $B$ ?), and (c) person  $B$ 's needs, thoughts, and motives with respect to this interaction. In the following, we replace persons  $A$  and  $B$  with John and Mary, two names that have often been used to illustrate the formal logic of interdependence theory. The model involving the situation and the two persons is sometimes referred to as the SABI model, an acronym for Situation, persons  $A$  and  $B$  that collectively account for Interaction (e.g., Holmes, 2002; Kelley et al., 2003; Van Lange et al., 2007; see the principle of structure, and the principle of interaction, Box 39.1).

The precise outcomes of an interaction – the degree to which John and Mary experience it as satisfying – depend on whether the interaction gratifies (versus frustrates) important needs, such as security, belongingness, and exploration (cf. Baumeister and Leary, 1995; Fiske, 2004). Interaction not only yields *concrete outcomes*, or immediate experiences of pleasure versus displeasure, but also *symbolic outcomes*, or experiences that rest on the broader implications of interaction (e.g., Rusbult and Van Lange, 1996). For example, if John and Mary disagree about where to dine yet John suggests Mary's favorite restaurant, Mary not only enjoys the concrete benefits of good food and wine, but also enjoys the symbolic pleasure of perceiving that John is responsive to her needs.

By analyzing how each person's possible behaviors would affect each person's outcomes, we can discern the structure of a situation with respect to degree and type of dependence, examining: (a) *actor control* – the impact of each person's actions on his or her own

outcomes; (b) *partner control* – the impact of each person's actions on the partner's outcomes; and (c) *joint control* – the impact of the partners' joint actions on each person's outcomes. And by examining the across-cell association between outcomes, we can discern *covariation of interests*, or the extent to which the partners' outcomes are correlated. These components define four structural dimensions; two additional dimensions have also been identified more recently (all six are described below; Kelley et al., 2003). Most situations are defined by their properties with respect to two or more dimensions. For example, the *prisoner's dilemma*, *hero*, and *chicken* situations all involve moderate and mutual dependence along with moderately conflicting interests, but these neighboring situations also differ in the magnitude of actor control, partner control, and joint control, as well as in their implications for interaction.

All conceivable combinations of the six properties define a very large number of patterns. However, we can identify at least 20 to 25 prototypes (Kelley et al., 2003). Everyday situations resemble these abstract patterns, sharing common interpersonal problems and opportunities. For example, the *twists of fate* situation is one wherein each partner, at some point, might unexpectedly find himself or herself in a position of extreme unilateral dependence; this sort of situation is characteristic of health crises and other reversals of fortune. And as another example, the *prisoner's dilemma* is a situation wherein each person's outcomes are more powerfully influenced by the partner's actions than by his or her own actions; this sort of situation is characteristic of interactions involving mutual sacrifice, trading favors, and free-riding. Everyday situations that share the same abstract pattern have parallel implications for motivation, cognition, and interaction.

### **Importance of interdependence structure**

Why should we care about interdependence structure? To begin with, structure in itself

### Box 39.1 Overview of basic assumptions of interdependence theory

#### 1 The principle of structure (“the situation”)

Understanding interdependence features of a situation are essential to understanding psychological process (motives, cognition, and affect), behavior, and social interaction. The features are formalized in a taxonomy of situations, which are degree of dependence, mutuality of dependence, covariation of interest, basis of dependence, temporal structure, and information availability

#### 2 The principle of transformation (what people make of “the situation”)

Interaction situations may be subject to transformations by which individualist consider consequences of own (and other’s) behavior in terms outcomes for self and others and in terms of immediate and future consequences. Transformation is a psychological process that is guided by interaction goals, which may be accompanied and supported by affective, cognitive and motivational processes.

#### 3 The principle of interaction: **SABI: $I = f(A, B, S)$**

Interaction is a function of two persons (persons *A* and *B*) and (objective properties) of the situation. The situation may activate particular motives, cognitive, and affective experiences in persons *A* and *B*, which ultimately through their mutual responses in behavior yield a particular pattern of interaction.

#### 4 The principle of adaptation

Repeated social interaction experiences yield adaptations that are reflected in relatively stable orientations to adopt particular transformations. These adaptations are probabilistic and reflect (a) differences in orientation between people across partners and situations (dispositions), (b) orientations that people adopt to a specific interaction partner (relationship-specific orientations), and (c) rule-based inclinations that are shared by many people within a culture to respond to a particular classes of situation in a specific manner (social norms).

reliably influences behavior. For example, situations with structure resembling the *threat* situation reliably yield demand–withdraw patterns of interaction – demands for change on the part of the lower power actor, met by withdrawal and avoidance on the part of the higher power partner (Holmes and Murray, 1996). And situations with structure resembling the *chicken* situation reliably yield interaction centering on establishing dominance and sustaining one’s reputation (Nisbett and Cohen, 1996). In short, the structure of situations often directly shapes behavior above and beyond the specific goals and motives of interacting individuals.

Moreover, specific structural patterns present specific sorts of problems and opportunities, and therefore (a) logically imply the relevance of specific goals and motives, and (b) permit the expression of those goals and motives. The term *affordance* nicely describes what a situation makes possible or may activate (see Table 39.1, which provides an overview

of possible affordances). For example, situations with uncertain information afford misunderstanding, and invite reliance on generalized schemas regarding partners and situations; generalized schemas carry less weight when information is more complete. In short, situation structure matters because it is the interpersonal reality within which motives are activated, toward which cognition is oriented, and around which interaction unfolds.

#### **Dimensions of interdependence structure**

*Level of dependence* describes the degree to which an actor relies on an interaction partner, in that his or her outcomes are influenced by the partner’s actions. If Mary can obtain good outcomes irrespective of John’s actions (high actor control), she is independent; she is dependent to the extent that John can (a) unilaterally determine her pleasure versus

**Table 39.1 The six dimensions of situational structure and their affordances (after Holmes, 2002; and Kelley et al., 2003)**

<i>Situation Dimension</i>	<i>Relevant Motives</i>
1 Level of dependence	Comfort versus discomfort with dependence; and comfort versus discomfort with independence
2 Mutuality of dependence	Comfort versus discomfort with vulnerability (as dependent) Comfort versus discomfort with responsibility (as power holder)
3 Basis of dependence	Dominance (leading) versus submissiveness (following) Assertiveness versus passivity
4 Covariation of interests	Prosocial versus self-interested motives (rules for self) Trust versus distrust of partner motives (expectations about others)
5 Temporal structure	Dependability versus unreliability Loyalty versus disloyalty
6 Information availability	Openness versus need for certainty Optimism versus pessimism

displeasure (partner control) or (b) in combination with Mary's actions determine her pleasure versus displeasure (joint control). Increasing dependence tends to cause increased attention to situations and partners, more careful and differentiated cognitive activity, and perseverance in interaction (e.g., Fiske, 1993; Rusbult, 1983). As noted in Table 39.1, dependence affords thoughts and motives centering on comfort versus discomfort with dependence and independence. For example, high dependence situations will activate Mary's trait-based reluctance to rely on others, her discomfort with dependence will strongly shape her behavior, and her discomfort will be particularly evident to others; in low dependence situations, this trait will be less visible and less relevant for her behavior.

*Mutuality of dependence* describes whether two people are equally dependent upon one another. Nonmutual dependence entails differential power – when Mary is more dependent, John holds greater power. The less dependent partner tends to exert greater control over decisions and resources, whereas the more dependent partner carries the greater burden of interaction costs (sacrifice, accommodation) and is more vulnerable to possible abandonment; threats and coercion are possible (e.g., Attridge et al., 1995; Murray et al., 2006). Interactions with mutual dependence tend to feel “safer” and are more stable

and affectively serene (less anxiety, guilt). Situations with nonmutual dependence afford the expression of comfort versus discomfort with another having control over your outcomes (e.g., feelings of vulnerability, for the dependent partner) along with comfort versus discomfort with you having control over other's outcomes (e.g., feelings of responsibility, for the powerful partner; see Table 39.1). For example, unilateral dependence will activate John's insecurity, and his insecurity will powerfully shape his behavior and be highly visible to others; in mutual dependence situations his insecurity will be less visible and less relevant to predicting his behavior.

*Basis of dependence* describes precisely how partners influence one another's outcomes – the relative importance of partner versus joint control as source of dependence. With partner control, the actor's outcomes rest in the partner's hands, so interaction often involves promises or threats as well as the activation of morality norms (“This is how decent people behave”); common interaction patterns may include unilateral action (when partner control is nonmutual) or tit-for-tat or turn-taking (when partner control is mutual; for example, Clark et al., 1998; Fiske, 1992). In contrast, joint control entails contingency-based coordination of action, such that ability-relevant traits become more important, including intelligence,

initiative-taking, and strategic skills; rules of conventional behavior carry more sway than morality norms (“This is the normal way to behave”; for example, Finkel et al., 2006; Turiel, 1983). Basis of dependence affords the expression of dominance versus submissiveness and assertiveness versus passivity, as well as skill such as social intelligence (see Table 39.1).

*Covariation of interests* describes whether partners’ outcomes correspond versus conflict – whether partners’ joint activities yield similarly gratifying outcomes for John and Mary. Covariation ranges from perfectly corresponding patterns through mixed motive patterns to perfectly conflicting patterns (zero-sum). Given corresponding interests, interaction is easy – John and Mary simply pursue their own interests, simultaneously producing good outcomes for the other. In contrast, situations with conflicting interests tend to generate negative cognition and emotion (greed, fear) and yield more active and differentiated information-seeking and self-presentation (“Can Mary be trusted?”; for example, Surra and Longstreth, 1990; Van Lange et al., 1997). Situations with conflicting interests afford the expression of cooperation versus competition and trust versus mistrust (see Table 39.1) – in such situations, John may demonstrate his prosocial motives as well as his trust in Mary.

*Temporal structure* is a fifth important structural dimension – one that captures dynamic and sequential processes. As a result of interaction, some future behaviors, outcomes, or situations may be made available and others may be eliminated. John and Mary may be passively moved from one situation to another or they may be active agents in seeking such movement. *Extended situations* involve a series of steps prior to reaching a goal (e.g., investments leading to a desirable outcome). *Situation selection* describes movement from one situation to another, bringing partners to a situation that differs in terms of behavioral options or outcomes – for example, Mary may seek situations entailing lesser interdependence, or



John may confront the juncture between a present relationship and an alternative relationship by derogating tempting alternatives (e.g., Collins and Feeney, 2004; Miller, 1997). Temporally extended situations afford the expression of self-control, delay of gratification, and the inclination to “stick with it” – dependability versus unreliability, as well as loyalty versus disloyalty (e.g., Mischel, Chapter 1, this volume) (see Table 39.1).

*Information availability* is the final structural dimension: Do John and Mary possess certain versus uncertain information about: (a) the impact of each person’s actions on each person’s outcomes; (b) the goals and motives guiding each person’s actions; and (c) the opportunities that will be made available versus eliminated as a consequence of their actions? Certain information is critical in novel or risky situations and in interactions with unfamiliar partners. Accordingly, partners engage in a good deal of information exchange during the course of interaction, engaging in attributional activity to understand one another and the situation (e.g., Collins and Miller, 1994). People may also use representations of prior interaction partners to “fill in the informational gaps” in interaction with new partners, or may develop frozen expectations that reliably color their perceptions of situations and partners (e.g., Andersen and Chen, 2002; Holmes, 2002, 2004). For example, people may generally rely on the belief that the most people are (rationally) self-interested, which in turn may help them to fill in the blanks when faced with incomplete information about another person’s actions (Vuolevi and Van Lange, 2010). As another example, people with avoidant attachment may perceive a wide range of situations as risky, anticipate that partners are likely to be unresponsive, and readily forecast problematic interactions. Thus, uncertain information affords, among other things, the expression of openness versus the need for certainty, as well as optimism versus pessimism (see Table 39.1).

## INTERDEPENDENCE PROCESSES

Recall that interaction ( $I = f [S, A, B]$ ) is shaped not only by interdependence structure ( $S$ ), but also by partners' needs, thoughts, and motives in relation to one another ( $A$  and  $B$ ) in the context of the situation in which their interaction unfolds (SABI, see Principle of). Thus, we must add to our structural analysis a complementary analysis that describes how John and Mary react to the situations they encounter. How do they psychologically transform specific situations, responding on the basis of considerations other than tangible self-interest? What role do mental events and habits play in shaping this process, and how do partners seek to understand and predict one another? And how do people develop relatively stable tendencies to react to specific situations in specific ways?

### **Transformation process**

To describe how situation structure affects motivation, interdependence theory distinguishes between: (a) the *given situation* – preferences based on self-interest (the “virtual structure” of a situation); and (b) the *effective situation* – preferences based on broader considerations, including concern with the partner's interests, long-term goals, or strategic considerations (Kelley and Thibaut, 1978; Van Lange and Joireman, 2008). Psychological *transformation* describes the shift in motivation from given to effective preferences. People typically behave on the basis of transformed preferences – considerations other than immediate self-interest guide our actions. But people sometimes behave on the basis of given preferences; this is likely in simple situations for which no broader considerations are relevant, when people lack the inclination or wherewithal to take broader considerations into account, and in situations involving time pressure or constrained cognitive capacity.

Transformations are often conceptualized decision rules that a person (often implicitly) adopts during interaction (Kelley et al.,

2003; Murray and Holmes, 2009; Van Lange et al., 2007, see the principle of transformation, Box 39.1). People may follow rules that involve sequential or temporal considerations, such as waiting to see how the partner behaves, or adopting strategies such as tit-for-tat or turn-taking. Other rules reflect differential concern for one's own and a partner's outcomes, including: altruism, or maximizing the partner's outcomes; cooperation, or maximizing combined outcomes; competition, or maximizing the relative difference between one's own and the partner's outcomes; and individualism, or maximizing one's own outcomes irrespective of the partner's outcomes.

Transformation is particularly visible when a given situation structure dictates one type of behavior yet personal traits or values dictate another type of behavior. When people act on the basis of transformed preferences, we are able to discern their personal traits and motives. For example, when Mary helps John with yard work rather than going out with her friends, she communicates concern for his welfare. The transformation process is thus the point at which the “rubber meets the road,” or the point at which *intrapersonal* processes – cognition, affect, and motivation – operate on specific situations in such a manner as to reveal the unique self.

### **Cognition, affect, and habit**

Human intelligence is interpersonal – cognitively and affectively, we are well prepared to construe the world in terms of interdependence (Rusbult and Van Lange, 2003). Mental events are geared toward discerning what a situation is “about,” evaluating that structure in terms of one's own needs and motives, perceiving the partner's needs and predicting his or her motives, and forecasting implications for future interactions (e.g., Kelley, 1984). Situation structure partially shapes cognition and affect. For example, the prisoner's dilemma entails a choice between benefiting the partner at low cost to the self versus benefiting the self at substantial cost

to the partner. The characteristic blend of fear and greed that is afforded by this situation serves as a rather automatic indicator of the essential opportunities and constraints of this type of situation.

The transformation process is often driven by the cognition and affect that a situation affords. For example, Mary is likely to exhibit self-centered or antisocial transformation when she experiences greedy thoughts and desires (“It’d be nice to take a free ride”) or feels fearful about John’s motives (“Will he exploit me?”). Cognition and emotion are also shaped by distal causes – by the values, goals, and dispositions that are afforded by the situation. For example, Mary’s reaction to situations with conflicting interests will be colored by the value she places on fairness, loyalty, or communal norms (versus greed), as well as by whether she trusts John (or alternatively, fears him). Thus, the mental events that underlie transformation are functionally adapted to situation structure, and take forms that are relevant to that structure.

At the same time, the transformation process does not necessarily rest on extensive mental activity. As a consequence of adaptation to repeatedly encountered patterns, people develop habitual tendencies to react to specific situations in specific ways, such that transformation often transpires with little or no conscious thought (e.g., Rusbult and Van Lange, 1996). For example, following repeated interaction in situations with prisoner’s dilemma structure, John and Mary may automatically exhibit mutual cooperation, with little or no cognition or affect. Mediation by mental events is more probable in novel situations with unknown implications, in risky situations with the potential for harm, and in interactions with unfamiliar partners.

### **Communication, attribution, and self-presentation**

During the course of interaction, partners convey their goals, values, and dispositions using both direct and indirect means.

Communication entails self-presentation on the part of one person and attribution on the part of the other. As noted earlier, the material for self-presentation and attribution resides in the disparity between the given and effective situations, in that deviations from self-interested behavior reveal an actor’s goals and motives (e.g., Rusbult and Van Lange, 2003). Thus, the ability to communicate self-relevant information is limited by interdependence structure – that is, specific situations afford the display of specific motives. For example, it is difficult for people to convey trustworthiness (or to discern it) in situations with correspondent interests, in that in such situations, “trustworthy” behavior aligns with “self-interested” behavior.

People engage in *attributional activity* to understand the implications of a partner’s actions, seeking to predict future behavior and to explain prior behavior in terms of situation structure versus underlying dispositions. Expectations are not particularly accurate in interactions with new partners, in that they must be based on probabilistic assumptions about how the average person would react in a given situation; in longer-term relationships, expectations can also be based on knowledge of how a partner has behaved across a variety of situations. And *self-presentation* describes people’s attempts to communicate their motives and dispositions to one another. Of course, self-presentation may sometimes be geared toward concealing one’s true preferences and motives. Moreover, given that people do not always hold complete information about their partners’ given outcomes, they may sometimes mistakenly assume that a partner’s behavior reflects situation structure rather than psychological transformation. For example, Mary’s loyalty or sacrifice may not be visible if John fails to recognize the costs she incurred.

### **Adaptation**

When people initially encounter specific situations, the problems and opportunities

inherent in the situation will often be unclear. In such novel situations, Mary may systematically analyze the situation and actively reach a decision about how to behave, or she may simply react on the basis of impulse. Either way, experience is acquired. If her choice yields good outcomes, she will react similarly to future situations with parallel structure; if her choice yields poor outcomes, she will modify her behavior in future situations with parallel structure. *Adaptation* describes the process by which repeated experience in situations with similar structure gives rise to habitual response tendencies that on average yield good outcomes. Adaptations may be embodied in interpersonal dispositions, relationship-specific motives, or social norms (Rusbult and Van Lange, 1996, see the principle of adaptation, Box 39.1).

*Interpersonal dispositions* are actor-specific inclinations to respond to particular classes of situation in a specific manner across diverse partners (Kelley, 1983). Dispositions emerge because over the course of development, different people experience different histories with different partners, confronting different sorts of interaction opportunities and problems. As a result of adaptation, John and Mary acquire dispositional tendencies to perceive situations and partners in specific ways, and specific sorts of transformations come to guide their behavior. Thus, the “self” is the sum of one’s adaptations to previous situations and partners (such adaptations are determined also by needs and motives that are biologically based). For example, if John’s mother employed her power in a benevolent manner, gratifying his childhood needs and serving as a secure base from which he could explore, John will have developed trusting and secure expectations about dependence (for a review, see Fraley and Shaver, 2000).

*Relationship-specific motives* are inclinations to respond to particular classes of situation in a specific manner with a specific partner (Rusbult and Van Lange, 2003). For example, commitment emerges as a result of dependence on a partner, and is strengthened

by high satisfaction (John gratifies Mary’s most important needs), poor alternatives (Mary’s needs could not be gratified independent of her relationship), and high investments (important resources are bound to her relationship). Commitment colors emotional reactions to interaction (feeling affection rather than anger) and gives rise to habits of thought that support sustained involvement (use of plural pronouns; for example, Agnew et al., 1998). In turn, benevolent thoughts encourage prosocial transformation. For example, strong commitment promotes prosocial acts such as sacrifice, accommodation, and forgiveness (e.g., Finkel et al., 2002; Rusbult et al., 1991; Van Lange et al., 1997).

*Social norms* are rule-based, socially transmitted inclinations to respond to particular classes of situation in a specific manner (Thibaut and Kelley, 1959). For example, most societies develop rules regarding acceptable behavior in specific types of situation; rules of civility and etiquette regulate behavior in such a manner as to yield harmonious interaction. Partners frequently follow agreed-upon rules regarding resource allocation, such as equity, equality, or need (Deutsch, 1975). Such rules may govern a wide range of interactions or may be relationship-specific (e.g., communal norms in close relationships; Clark et al., 1998; Fiske, 1992). Norms not only govern behavior, but also shape cognitive experiences. For example, in interactions guided by communal norms, partners neither monitor nor encode the extent of each person’s (short-term) contributions to the other’s welfare.

## DEVELOPMENT OF INTERDEPENDENCE THEORY: AN INTERPERSONAL ACCOUNT

As noted earlier, the history of interdependence theory is strongly shaped by the long-standing collaboration and friendship between Harold Kelley and John Thibaut. A sketchy summary of the history of interdependence

**Table 39.2 Brief historical overview of interdependence theory**

1959	Thibaut, J.W. and Kelley, H.H. (1959) <i>The Social Psychology of Groups</i> . New York: Wiley	<p>Provides social exchange analysis of interactions and relationships individuals in dyads and small groups.</p> <p>Uses games as a conceptual tool and focuses on analysis of dependence, power, rewards, costs, needs and outcomes in exchange relations.</p> <p>Introduces new concepts such as comparison level and comparison level of alternatives (CL and CL-alt) to understand relationship satisfaction and stability.</p>
1978	Kelley, H.H., and Thibaut, J.W. (1978) <i>Interpersonal Relations: A Theory of Interdependence</i> . New York: Wiley.	<p>Provides comprehensive analysis of interaction situations in terms of four dimensions, labeled as degree of dependence, mutuality of dependence, correspondence of outcomes, and basis of dependence.</p> <p>Introduces transformation from given to effective matrix, thereby formalizing broader interaction goals broader than immediate self-interest.</p> <p>Adopts a functional analysis of transformations, thereby recognizing social learning of transformation rules, and its functional value for particular domains of situation.</p>
2003	Kelley, H.H. et al. (2003) <i>An Atlas of Interpersonal Situations</i> . New York: Cambridge University Press	<p>Provides an overview of 21 basic interaction situations, which are analyzed in terms of interdependence features, the psychological processes that they afford, and the interaction processes that they might evoke.</p> <p>Extends the taxonomy of situations by two additional dimensions to yield six dimensions, including (a) degree of dependence, (b) mutuality of dependence, (c) basis of dependence, and (d) covariation of interest (was formerly referred to as correspondence of outcomes), and (e) temporal structure and (f) information availability.</p>
	At present and in the future:	<p>Integrates interdependence theory with principles of evolutionary theory to understand adaptation as a function of the situational structure.</p> <p>Extends interdependence theory to neuroscientific models of the social mind.</p> <p>Re-extends interdependence theory to group processes and relationships between groups.</p>

theory is provided in Table 39.2. Our narrative is written from the perspective of Harold Kelley, as the authors of this chapter interacted much more with “Hal” (1921–2003) than with John Thibaut (1917–1986), which is why we refer to the former as Hal and the latter as John Thibaut. The collaboration between Thibaut and Kelley started when Hal was invited to write a chapter on “group problem solving” for the *Handbook of Social Psychology*. Hal invited John Thibaut, whom he knew well from the Research Center for

Group Dynamics at MIT, to collaborate on writing this chapter. This decision, so he described informally, was one of the very best in his academic career. There was an interpersonal fit from the very beginning, and they wrote a beautiful chapter, inspired by some of the notions put forward by Kurt Lewin, in which they analyzed the interdependence between individuals in their pursuit of group goals. The major themes – interdependence and social interaction – were discussed in a manner that was predictive of

their later collaboration, one that lasted for three decades until the death of John Thibaut in 1986. They developed a collaboration that was characterized by many travels between Malibu and Chapel Hill, by deep friendship and tremendous mutual respect, by equality (they were both follower and leader) as well as by similarity *and* complementarity. To magnify the latter (for illustration purposes), the natural distribution of tasks was that Hal focused more strongly on analysis of situations, while John Thibaut focused more strongly on connections with the various literatures inside and outside of psychology. They were also complementary in that Hal's interests focused more on the dyad (later relationships) whereas John's interests' focused more on the (small) group.

They then wrote a book (Thibaut and Kelley, 1959) that was inspired by social exchange theory (in particular, Homans, 1950) and by game theory and decision theory (in particular, a highly influential book by Luce and Raiffa, 1957). Essentially, they analyzed social interactions in dyads and small groups in terms of patterns of social exchange, thereby using games as the conceptual tool – to be able to delineate the patterns of interdependence, such as rewards and costs, and power and dependence. They also introduced new concepts such as comparison level and comparison level for alternatives (CL and CL<sub>alt</sub>) to provide a strong conceptual analysis for the differences between satisfaction and dependence. This book was a great success and a must-read for any social psychologist at that (or any) time (see Jones, 1998).

After nearly two decades, Kelley and Thibaut (1978) modestly expressed the belief that their new analysis – an interdependence analysis – might well reach the standards of a theory. While the origins were captured in the 1959 book, interdependence theory was now formally born (Hal and John were careful scientists and they would reserve the label theory only for those kinds of conceptual analysis that would pass stringent tests of scientific rigor – probably defined by Hal and John Thibaut in terms of clear logic and wide

breadth of relevance). In that book, they presented interdependence theory, and it became immediately clear that many years were devoted to very basic theoretical issues.

One decision they faced was whether behavior was primarily based on the given matrix (i.e., on the basis of immediate self-interest) or whether the theory should be extended to include broader considerations. Informed by research during the sixties and seventies, they agreed on the latter and provided a logical framework for a number of fundamental transformations, which they labeled as MaxJoint (enhancement of joint outcomes), MinDiff (minimization of absolute differences in outcomes for self and others), MaxRel (maximization of relative advantage over other's outcomes), and the like. These transformations were also inspired by the work of Messick and McClintock, and many others around the globe, who had already provided empirical evidence for some transformations in their research using experimental games as empirical tools (e.g., Messick and McClintock, 1968). Hal and John also outlined other types of transformation, which emphasize the idea that people respond to contingencies and expected implications of present behavior for the future. Another key difference with the earlier book was that it emphasized the functional value of various transformations. In short, this book contributes logic to the question, What do “people make of situations?” (see also Kelley et al., 2003).

Thus, the classic Kelley and Thibaut interdependence analysis became a comprehensive theory encompassing (a) a formal analysis of the “objective” properties of a situation with the help of a taxonomy of situations, (b) a conceptualization of psychological process in terms of transformations, including motives, cognition, and affect (what do people make of the situation?), and (c) behavior and social interaction – which resulted from both the objective properties of the situation, and what both persons made of it. Moreover, they emphasized (d) adaptation and learning, as longer-term orientations that

may grow out of experience. Inspired by the work of Messick and McClintock (1968), and their own (Kelley and Stahelski, 1970), they also suggested that people might differ in their “transformational tendencies.” These adaptations were later conceptualized in terms of dispositions, relationship-specific motives, and social norms (see Rusbult and Van Lange, 1996).

Over time, numerous people were inspired by the “logic” of interdependence theory – its assumptions, the reasoning, and last but not least, its focus. Logic is one thing, but it appeared to have considerable breadth. And so researchers in areas as diverse as altruism, attribution, coordination, conflict, cooperation, competition, delay of gratification, exchange, investments, fairness, justice, love, power, prosocial behavior, trust, sacrifice, self-presentation, stereotyping, hostility and aggression in the context of dyads, ongoing relationships (close or not) and groups (small and larger, ongoing or not), either found it exceptionally useful or were inspired by it. Also, researchers studying environmental issues, organizational issues, and political issues have fruitfully used principles from interdependence theory (for a comprehensive review, see Rusbult and Van Lange, 1996, 2003; Van Lange and Joireman, 2008). The list of authors is too long to summarize here, but we wish to note that, if we were to list them it would become clear that interdependence theory had a strong influence in various countries even in the pre-Internet era (most notably, Austria, Australia, Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, New Zealand, Poland, Sweden, United Kingdom, and the US), and that influence spanned successive generations, so that it is fair to say that it has strong appeal to young-, mid-, and late-career scientists.

To illustrate from the experience of the Atlas project group, John Holmes had worked with John Thibaut, and used principles of interdependence theory in his work on trust and conflict (as well as on motivation-management in relationships; Holmes and Rempel, 1989; Murray and Holmes, 2009).

Caryl Rusbult developed the investment model of commitment processes, a framework that was deeply rooted in interdependence theoretic principles, to understand persistence and commitment processes in ongoing relationships (see Rusbult and Van Lange, 2003; Rusbult et al., 2006). Paul Van Lange was intrigued by Kelley and Thibaut’s taxonomy of situations (“structure”) and transformations (what “persons” make of situations) and found it very useful for his research on social value orientation as well as for understanding the functionality of generosity in social dilemmas (see Van Lange et al., 1997, 2002). Norbert Kerr found an interdependence perspective useful for understanding group-related issues as diverse as motivation and performance, cooperation, and free-riding in social dilemmas (see Baron and Kerr, 2003; Kerr and Tindale, 2004). It was Harry Reis who not only had used interdependence theory in his research on intimacy and responsiveness in relationships (e.g., Reis, 2008; Reis et al., 2000), but also had the vision and skills in getting this group of people together at a joint meeting of the Society of Experimental Social Psychology (SESP) and the European Association of Experimental Social Psychology (EAESP) in Washington in 1995. This resulted in a six-year collaboration and eventually the publication of the *Atlas of Interpersonal Situations* (Kelley et al., 2003).

The group came together at various meetings, often right before or after a major social psychological conference in Europe or the US. There were two meetings that were independent of a conference. First, in 1996, during Caryl’s sabbatical at the VU University in Amsterdam, we held a series of eight-hour (nearly nonstop) daily sessions for about seven days. Hal, Caryl Rusbult and Paul Van Lange discussed aspects of what was later called “temporal structure,” and drafted an outline for chapters for the book. But fortunately, those not present later corrected a tendency to embrace complexity rather than parsimony. Second, the other series of meetings was held in 2000 in Boca Raton, Florida,

generously sponsored by Bibb Latané. At this series of meetings, we discussed the various drafts of the chapters, and reached final consensus over the situations that should – or should not – be included in the book.

The *Atlas* by Kelley et al. (2003) extended Kelley and Thibaut (1978) in very important ways, but perhaps most notably by analyzing 21 situations and by adding two dimensions to the four dimensions of interdependence that Kelley and Thibaut already had previously identified. The added dimensions were (a) temporal structure, and (b) information availability. The first copy of the book was published ahead of schedule (thanks to Harry Reis and our publisher, Cambridge University Press) and was given to Hal Kelley about a week or less before he died. Caryl, John, Norb, and Paul saw the first copy at the Society for Personality and Social Psychology (SPSP) meeting in Los Angeles, in February 2003, shortly before a memorial service for Hal at UCLA. Also, Hal suggested earlier that we dedicate the book to the memory of John Thibaut, and that suggestion received strong support, in synchrony, from us all.

As one of us (PvL) edits this chapter, I might be indulged in saying a bit more about the contributions to the development of interdependence theory of my late colleague, collaborator, and dear friend, Caryl Rusbult. Needless to say, Caryl Rusbult was a major contributor to the *Atlas* throughout all six years. As a UCLA undergraduate (where Hal was professor) and UNC (Chapel Hill) graduate student (where John Thibaut was professor) and later faculty member, she developed a strong commitment to interdependence theory. It was only two days before she died (far too young at the age of 57 in January 2010) that she and I re-evaluated the various projects we had worked on together. We decided that the comprehensive review (Rusbult and Van Lange, 1996) and the *Atlas* joint venture (Kelley et al., 2003) were among the highlights of our long-standing collaboration. We truly enjoyed talking about interdependence theory – its logic, the ways in which it needs to be communicated and

extended, and its implications for basic questions about relationship processes (Caryl's passion) and human cooperation (Paul's focus). We also frequently discussed “applications” of interdependence theory by examining why and when an interdependence-theoretical analysis mattered. This is the question that we address next.

## APPLICATIONS OF INTERDEPENDENCE THEORY

To comprehend the utility of interdependence concepts it is important to “see them in action” – to perceive the theoretical, empirical, and societal benefits of these concepts in advancing our understanding of specific psychological phenomena. In particular, we suggest that interdependence theory is especially useful for understanding relationship persistence and stability, interpersonal generosity, as well as other broad topics – such as goal pursuits in relationships, and understanding of group processes.

### *Understanding goal pursuits*

Our first example illustrates a simple point: *interdependence matters*. In fact, interdependence shapes many psychological processes that might seem to be thoroughly actor-based and *intrapersonal*, such as individual goal pursuits. Goals are end states that give direction to behavior, either as overarching life plans or as simple everyday endeavors. Traditional models of goal pursuit have employed *intrapersonal* explanations, examining individual-level processes such as goal-plan directed behavior, self-regulation, or goal-behavior disparities (e.g., Carver and Scheier, 1998; Mischel, Chapter 1, this volume). The success of goal pursuit has been argued to rest on actor-level variables such as goals, traits, skills, and motivation. A notable approach in this tradition is regulatory focus and regulatory fit theories which suggest that people are

more likely to achieve goals when they approach them in a manner that fits their regulatory orientation – when they approach promotion-ideal self goals of accomplishment in an eager manner and approach prevention-ought self goals of security in a vigilant manner (Higgins, 1997, 2000, 2011).

An interdependence analysis shares some of these assumptions, but extends them in interesting directions. Indeed, research using diverse empirical techniques has revealed that in ongoing relationships, people enjoy greater movement toward their ideal selves not only when (a) they, themselves, possess strong promotion orientation (actor control), but also when (b) their partners possess strong promotion orientation (partner control) (parallel negative associations are evident for prevention orientation; Righetti and Rusbult, 2007). Indeed, partners with a strong promotion orientation support the actor's movement toward the ideal self because such partners more reliably elicit key components of the actor's ideal-related eagerness. Some empirical support was also obtained for a third form of fit: Above and beyond the above-noted actor and partner effects, there is some evidence for a joint control effect, such that (c) actor–partner commonality in regulatory orientation also influences each person's movement toward the ideal self. Thus, the fact that goal pursuit and attainment are powerfully and reliably influenced by interdependence processes suggests that there is much to recommend in an interdependence theoretic analysis. Interdependence matters.

### ***Understanding persistence***

Our second example illustrates the fact that *interdependence structure* matters. Indeed, structure can often help explain otherwise inexplicable phenomena, such as why attitudes do not always satisfactorily predict behavior, or why people sometimes persist in situations that are not particularly satisfying. Traditionally, persistence has been explained by reference to positive affect: people persevere

in specific endeavors because they have positive explicit or implicit attitudes about the endeavor; people persevere in specific jobs or relationships because they feel satisfied with them (e.g., Ajzen, 1991; Greenwald et al., 1998). The affect construct has been operationally defined in terms of satisfaction level, positive attitudes, liking, or attraction.

An important challenge to this “feel good” model of persistence (“So long as it feels good, I’ll stick with it”) is to be found in situations wherein people persevere despite the existence of negative affect. Clearly, people sometimes persevere even though they hold negative attitudes about behavior-relevant attitude objects; people sometimes stick with jobs or marriages despite feelings of dissatisfaction. Persistence in an abusive relationship is a particularly telling illustration: surely people do not persist because they are delighted with such relationships. Some authors have sought to account for such inexplicable persistence in terms of trait-based explanations – by reference to a victim's low self-esteem or learned helplessness (e.g., Aguilar and Nightingale, 1994; Walker, 2000). Inexplicable persistence is thus assumed to be an actor effect – people persevere because of something peculiar or unhealthy about themselves.

In contrast, an interdependence analysis explains persistence more broadly, by reference to the nature of an actor's dependence. To the extent that people are more dependent upon their jobs or relationships, they are more likely to persist in them; the greater their dependence upon a distal goal, the more likely they are to persist in pursuit of the goal. In relationships, dependence is strengthened by increasing satisfaction (are important needs gratified?), declining alternatives (could important needs be gratified elsewhere?), and increasing investments (are important resources linked to the line of action?; see Rusbult et al., 2006). For example, Mary may persevere in an abusive relationship not necessarily because she has low self-esteem or has acquired a pattern of learned helplessness, but rather, for reasons resting on structural

dependence – because she is heavily invested in remaining with her partner (e.g., she is married to John or has young children with him) or has poor alternatives (e.g., she has no driver's license or possesses poor employment opportunities; Rusbult and Martz, 1995).

Why should scientists favor an interdependence-based analysis of persistence? For one thing, positive affect is not particularly reliable – affect ebbs and flows even in the most satisfying jobs and relationships, such that “feeling good” is not sufficient to sustain long-term persistence. In addition, actor-based explanations would appear to be limited in light of clear evidence for dependence-based causes of persistence (e.g., Mary may have invested too much to quit). Moreover, interdependence-based explanations imply unique intervention strategies. For example, if we seek to enhance Mary's freedom to persist versus cease involvement with John, an actor-based explanation might favor psychotherapy geared toward raising self-esteem or eliminating learned helplessness. In contrast, an interdependence-based explanation might inspire interventions designed to reduce (unilateral) dependence – for example, improving the quality of Mary's economic alternatives via driving lessons or job training. Also, in therapy, the focus may not only be on some fluctuation in satisfaction as such, but on the interpersonal causes that might account for it in combination with implications for the future of the relationships. This interdependence-based analysis differs from actor-based approaches, in that they emphasize the actor-and-partner interactions, and what holds them together in the future. For example, sometimes a change (a move) that they initiate and accomplish together may bring about closeness and trust through enhanced interdependence.

### ***Understanding interpersonal generosity***

Our third example illustrates how *adaptations* might be influenced by *interdependence structure*. That is, the precise properties

of interdependence structure are essential to the basic question of under what circumstances generosity might be functional. Our example concerns the best-known and most thoroughly investigated interdependence situation: the prisoner's dilemma. Traditional analyses of situations with this structure have revealed that people enjoy superior outcomes over the course of long-term interaction when they behave on the basis of *quid pro quo*, or tit-for-tat (Axelrod, 1984; Pruitt, 1998): if an interaction partner cooperates, you should likewise cooperate; if a partner competes, you should compete.

But how effective is tit-for-tat under conditions of suboptimal information availability – for example, when people are aware of how a partner's behavior affects their own outcomes, but are not aware of situational constraints that may have shaped the partner's actions? An interdependence analysis suggests that misunderstanding is often rooted in *noise*, or discrepancies between intended outcomes and actual outcomes for a partner that result from unintended errors (Kollock, 1993). For example, when John fails to receive a response to an email message that he sent to Mary, it may be because of a network breakdown in Mary's workplace rather than to Mary's disregard for his well-being. Noise is ubiquitous in everyday interaction, in that the external world is not error-free (e.g., networks sometimes crash) and people cannot lead error-free lives (e.g., Mary may accidentally delete John's email note in her daily spam purge).

Given that tit-for-tat entails reciprocating a partner's *actual* behavior – and not the partner's *intended* behavior – responding in kind serves to reinforce and exacerbate “accidents.” If the accident involves unintended good outcomes, the consequences may be positive. But if the accident entails unintended negative outcomes, the consequences may be more serious. For example, when Mary's actions cause John to suffer poor outcomes, he may respond with tit-for-tat, enacting a behavior that will cause her poor outcomes. In turn – and despite the fact that she did not initially

intend to harm John – Mary will react to John's negative behavior with tit-for-tat, causing him to suffer reciprocal poor outcomes. John and Mary will enter into a pattern of negative reciprocity: they can become trapped in an extended echo effect from which they cannot readily exit – an echo effect that tit-for-tat simply reinforces.

Indeed, research reveals that negative noise exerts detrimental effects when people follow a strict reciprocity rule – partners form more negative impressions of one another and both people suffer poorer outcomes (Van Lange et al., 2002). In contrast, a more generous, tit-for-tat-plus-one strategy (giving the partner a bit more than one received from the partner) yields better outcomes – noise does not negatively affect partners' impressions of one another or the outcomes each receives over the course of interaction. Indeed, in the presence of negative noise, a generous strategy yields better outcomes for both people than does tit-for-tat (for more extended evidence, see Klapwijk and Van Lange, 2009). Such findings are reminiscent of the literature regarding interaction in close relationships, where partners have been shown to enjoy better outcomes in conflictual interactions when one or both partners accommodate or forgive (e.g., Karremans and Van Lange, 2008; Rusbult et al., 1991, see also Simpson, 2007).

The societal implications of this interdependence analysis are quite powerful, as they suggest relatively concrete advice for people entering new situations at school, in organizations, and other situations where people interact in dyads and small groups. Under circumstances of imperfect information (which most situations are like) it helps to give people the benefit of the doubt, to reserve judgment, and to add a little generosity to our tendencies to interaction in a tit-for-tat manner. The findings may also be especially relevant to the communication through email, Internet, and other electronic means, as these devices tend to be quite "noisy." But perhaps the use of 'smileys' and other devices might just serve the very function

to communicate trust and generosity to cope with noise.

### ***Understanding intergroup relations***

Most group phenomena are more complex – often too complex for a comprehensive analysis, which is probably why Thibaut and Kelley often did not go beyond the triad. Nevertheless, the logic provided by interdependence theory has also considerable potential in analyzing intergroup relations.

One important issue is the analysis of intergroup relations. Sometimes groups face high correspondence of outcomes, in that they both (or all) are pursuing the same goal and need each other in that pursuit. For example, neighboring countries help each other in their pursuit of controlling the use of hard drugs. Under such circumstances, groups may actually develop fairly congenial relationships, especially when they hold similar views about the policy for doing so. Sometimes groups face moderate correspondence of outcomes, in the pursuit of some collective goal that is quite costly to each group. For example, countries want to control global warming, but they differ in their interest or views as to how much to contribute. Under such circumstances, groups are faced with social dilemmas (in the intergroup context, a conflict between ingroup interest and common, superordinate interests), and they often exhibit considerably less cooperation than individuals in similar situations (Insko and Schopler, 1998). The primary reasons accounting for that effect are linked to the affordances of the interdependence situation. For example, some degree of conflicting interest challenges trust more (and enhances competitive motivation more) in interactions between groups than between individuals (for a meta-analytic review, see Wildschut et al., 2003). Indeed, there is good deal of evidence that an interdependence approach complements other approaches (such as social identity and self-categorization approaches) in their predictions of intergroup relations.

A strong concern with receiving better outcomes – and not getting worse outcomes – than other groups is often conflicting with good outcomes for the collective (De Dreu, 2010). However, competition can sometimes be a powerful means to cooperation. It takes an interdependence approach to analyze the patterns of interdependence between (a) the individual and their group, (b) the individual and the collective, and (c) the group and the collective (see Bornstein, 1992; Halevy et al., 2008; Wit and Kerr, 2002). For example, a soldier (i.e., the individual) who fights forcefully often serves the group (i.e., his/her country), but not necessarily the world (i.e., the entire collective). In such multilayered social dilemmas, competition can be quite beneficial. When there are two (or more) well-defined groups who comprise the entire collective, then sometimes competition between the groups helps the entire collective. The competition should then deal with something desirable. For example, in the Netherlands, there is a contest between cities aiming for the award “Cleanest City.” As another example, two departments at a university may do better (yielding greater research output and enhanced teaching) if the university provides extra resources for only excellent departments. Indeed, organizations often use competition as a means to promote functioning.

***Benefits of a taxonomic approach: theoretical development in the future***

A unique and exceptionally important contribution of interdependence theory is the advancement of a taxonomy of situations. Indeed, there are very few theories in social psychology that advance a taxonomy of situations, even though social psychology as a field is strongly concerned with situational influence or influences from the social environment (see also Reis, 2008). Also, we believe that “dimensions” of temporal structure and information availability that have been added recently (Kelley et al., 2003) will

prove to be important to several issues in psychological science and beyond.

First, much research and theory in social psychology focuses on processes in an attempt to understand “system-questions”, such as how cognition and affect might influence one another, the characterization as a dual-process system, such as the reflective and impulsive system, hot and cool systems and so on. We suggest that interdependence theory provides a much-needed taxonomy of situations that may help us understand when (i.e., the situations in which) particular systems might be activated. For example, forms of dependence call for trust, especially when there is some conflict of interest, and perhaps limited time might set into motion a hot system where impulses and gut feelings drive behavior rather than systematic thought (see Hertel et al., 2000). An excellent case in point is the analysis of relationships between “the powerful” and “the powerless” in organizations (Fiske, 1993). Because the latter are strongly dependent on the former, it becomes important to engage in deep, systematical processing for reaching accurate conclusions about the motives and attributes of the powerful. In contrast, the powerful are less dependent on the powerless (and there are often many of the latter), and the powerful are often more shallow, heuristic in forming impressions of the powerless. Accordingly, they are more likely to fall prey to stereotypic information (Fiske, 1993).

Second, a taxonomy of situations is essential to dynamic approaches to social interaction and personality – people do not only respond to situations, they may also actively seek situations, avoid other situations, or shape situations in particular ways (e.g., Snyder and Ickes, 1985). However, it is one thing to recognize that people are not slaves of situational forces – that people select and modify situations in explicit or subtle ways; it is quite another thing to predict the character of situation selection. Interdependence theory provides insight in this respect, in that the dimensions underlying situations should reliably activate and afford specific sorts of

goals and motives. For example, sometimes people may avoid situations of dependence – the decision to work on an independent task rather than a joint task. Situation selection is often functional, in that it helps gratify specific needs or promotes long-term outcomes (Mischel and Shoda, 1995; Snyder and Ickes, 1985). But of course, situation selection may also initiate or sustain self-defeating processes. For example, shy children may avoid interaction, which in turn may limit their opportunities for overcoming shyness. The interdependence theory typology of situations can fruitfully be employed to extend predictive specificity in classic psychological domains, including not only the problem of specificity in predicting how traits relate to situation selection, but also specificity in predicting person-by-situation interactions (Kelley et al., 2003). As such, an interdependence theoretic analysis can advance precise predictions about the inextricable link between persons and situations.

Third, a taxonomic approach is essential to basic evolutionary issues. Because evolutionary theory focuses on the question of how common human characteristics interact with the social environment, it is essential to have the theoretical tools to analyze social situations in terms of their key features (e.g., Schaller et al., 2006; Tooby and Cosmides, 2005; Van Vugt, 2006). Interdependence theory shares some assumptions with evolutionary approaches. One such a shared assumption is that people, as individuals, partners, and as members of a group *adapt* to social situations (Kelley and Thibaut, 1978). At the same time, while evolutionary theory tends to focus on common human characteristics, interdependence theory can make a contribution by specifying key properties of the social situation to which people adapt – such as the dependence, conflicting interest, information availability, and so on. According to interdependence theory, it is plausible that people develop consistent contingencies, which may take the form of “if ... then” rules (Mischel and Shoda, 1999; see Murray and Holmes, 2009; Reis, 2008), in their adaptations

to different partners in different social situations. For example, as outlined by Murray and Holmes (2009), if-then rules might reflect the way in which trust is communicated and commitment is built in ongoing relationships – partner’s sacrifices might be directly translated into trust. Thus, while evolutionary theory has focused on adaptations, such as coordination and cooperation, interdependence theory provides the conceptual tools for understanding the domains of the situations that afford the expression of the skills and motives relevant to coordination and cooperation. This contribution may be very useful for helping to understand why some cognitions and emotions are closely connected to particular domains of interpersonal situations.

More generally, we suggest that interdependence theory will be exceedingly helpful as a model for understanding when and why particular neurological networks, hormonal responses, or complementary responses might be activated. These biology-based responses will often be adaptive in light of the qualities of both persons and the situation – that is, the SABI model discussed earlier. For example, on the observer’s side, responses that are linked to anger are probably best understood when carefully analyzing another person’s violation of a norm in situations where people are likely to have somewhat conflicting preferences (e.g., Singer et al., 2006). It is especially striking that people with prosocial orientations tend to react very automatically to a violation of equality (e.g., activation in the amygdala, Haruno and Frith, 2009). Such findings provide neuroscientific evidence in support of the integrative model of social value orientation, which states that prosocial orientation represents not only the tendency to enhance joint outcomes but also the tendency to enhance equality in outcomes (Van Lange, 1999). On the actor’s side, feelings of guilt might be evoked in such situations when we ourselves violate such norms (e.g., Pinter et al., 2007). Further, the topic of self-regulation (and affect-regulation and self-control) in the interpersonal domain is of course strongly linked to inhibiting the

temptation of self-interest and exercising self-restraint.

## CONCLUSION

Social psychology is the field of psychology that is defined most strongly in terms of influences of the situation – specifically, the influence of the social environment on human behavior. Somewhat surprisingly, not much theorizing in social psychology is centered on the analysis of the social environment. By providing a taxonomy of interpersonal situations, interdependence theory has served that role. The addition of new dimensions (information availability and temporal structure) to the well-established ones (dependence, mutuality of dependence, basis of dependence, covariation of interest) should be essential toward understanding the nature and mechanics of (implicit) theories that people bring to bear on situations with limited information (e.g., the hot and cold systems, the degree of processing, the needs and motives involved, as well as the implicit theories by which people make incomplete information complete) as well as the motives and skills that are relevant to time in a general sense (e.g., investment, delay of gratification, consideration for future consequences). A taxonomy of interpersonal situation is essential for theoretical progress.

From a theoretical perspective, it is crucial that we need to know better what a situation “objectively” represents, because only then it is possible to understand what people subjectively make of a situation (construction). Conceptually, the constructs of given situation (objective situation), transformation (meaning analysis), and effective situation (subjective situation) represent the heart of the interdependence theory. It complements much other theorizing in social psychology which tends to focus on the processes relevant to transformation and effective situation preferences. Another reason why a taxonomy is important is that it helps us understand the

situations that people might face (in terms of valence, frequency, and intensity), and how these features covary with several factors, such as differences in personality, social class, gender, and age. For example, the frequency with which one faces situations of unilateral dependence on another person might increase from adulthood to old age. A taxonomy of situations also helps us understand the situations that relationship partners and members of small groups are likely to face (or not) – for example, of how they face situation of conflicting interests. As a variation of Lewin’s (1952: 169) well-known dictum, one might suggest that “there is nothing as practical as a good taxonomy.”

Thus, after more than 50 years since Thibaut and Kelley (1959), interdependence theory comes full circle. It really has helped the field to get a grip on situations that interacting partners face or might face (the given interdependence situation), what they make of it (the transformation process) in terms of cognition and emotion, and how the structure and the processes shape human behavior and social interactions. This also helps to explain why interdependence theory has been well appreciated for over five decades, and why interdependence has been used to understand so many issues – group dynamics, power and dependence, social comparison, conflict and cooperation, attribution and self-presentation, trust and distrust, emotions, love and commitment, coordination and communication, risk and self-regulation, performance and motivation, social development, and neuroscientific models of social interaction. We are looking forward to the theoretical contributions and applications of interdependence theory over the next 50 years.

## NOTES

1 Sadly, Caryl Rusbult (1952–2010) passed away on January 27, 2010, some weeks before this chapter was completed. Some of her important contributions to interdependence theory throughout her career are described in this chapter. We thank John

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