

# Conceptual Model of Partnering and Alliancing

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**Abstract:** Partnering as a concept has matured in its application and many empirical studies provide evidence of its impact on project performance beyond the rather prescriptive and anecdotal claims of earlier cookbooks on the subject. What has remained elusive, however, is a guiding theory on partnering. Drawing on the literature, partnering is explained within the framework of intergroup contact theory and teamwork in organizations. More specifically, partnering has the potential to create the essential conditions for optimal intergroup contact and hence, to reduce bias and increase cooperation among construction project workgroups and, consequently, favorably impact on project performance. Demonstrating a close fit with the published literature on partnering provides useful support for the proposed model. The model can clearly help project managers to focus their attention on the necessary aspects of workgroup processes that lead to high cooperation and performance.

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## Introduction

Over the last decade, partnering has gained considerable popularity. However, several issues raise serious difficulties with the uptake of, understanding of, approach to, and implementation of, partnering within and across different national and organizational settings (Bresnen and Marshall 2000a,b; 2002; Fisher and Green 2001; Green 1999; Li et al. 2000; Loraine 1994; Naoum 2003; Uher 1999). In time, research has shed light on some of the contentious issues surrounding the concept of partnering. A number of empirical studies (e.g., Gransberg et al. 1999; Larson 1995; Weston and Gibson 1993) and a plethora of anecdotal evidence support the espoused benefits of partnering. Research highlights the usefulness and benefits of extending the practice of partnering down the entire supply and value chain to include subcontractors (e.g., Kale and Arditi 2001; Love 1997; Mathews et al. 1996; Miller et al. 2002; Sze et al. 2003). Partnering forms of contract (e.g., PPC 2000) attempt to prescribe and govern the behavior and relationships of contracting parties. While the legal status of such express good faith clauses has been questioned and their full practical import is yet unknown (see Cornes 1996; Cox and Thompson 1996), these attempts demonstrate a bold commitment to overcome the legal obstacles to the wider adoption of partnering. Some research has considered the potential impact of different cultural and national contexts on partnering performance (e.g., Koraltan and Dikbas 2002; Kwan and Ofori 2001; Liu and Fel-

lows 2001). With “success stories” of partnering emerging from diverse cultural settings (e.g., Bayliss et al. 2004; Bennett and Baird 2001; Chan et al. 2004b), the general view is that partnering is by no means exclusive to any country, continent, or culture.

However, partnering still lacks conceptual-definitional specificity. Partnering is variously defined by its outcomes or the processes involved in its implementation (Crowley and Karim 1995). Barlow et al. (1997) and the ECI (1997) avoid attempting a precise definition and instead conclude that partnering is best considered as embodying a set of processes and practices designed to promote cooperation between contracting parties. According to Phua and Rowlinson (2004a, p. 45), partnering is the term for the cooperation motif in the construction industry. Love et al. (2002, p. 2) conclude that partnering is synonymous with strategic alliance. Nyström (2005, p. 473) concludes that “a definition does not exist for this multifaceted concept.” It is argued that the confusion over definitions is due primarily to the lack of a guiding theory on partnering as an entity. Existing conceptual models of partnering to date (1) are cookbooks on the concept (i.e., process models) providing guidance on best practices and “how to” (e.g., Brooke and Litwin 1997; Cheng and Li 2001; Crane et al. 1997; Wilson et al. 1995); (2) describe and/or categorize various stages in the development of the relationship among the parties (e.g., Ellison and Miller 1995; Nyström 2005; Thompson and Sanders 1998); or (3) describe the facilitating structure for resource exchange and decision-making among the parties (e.g., Cheng et al. 2001; Crowley and Karim 1995). Although significant, these studies fail to provide sound theoretical support for the entity of partnering and the recommendations and observations they make.

It is in this area that this paper hopes to make a useful contribution—in providing sound theoretical support for the processes and elements that define the entity of partnering. The rest of the discussion is organized as follows. The next section describes the industry context, which gave rise to the notion of partnering. The two sections that follow discuss, respectively, the theory of teamwork in organizational settings and the contact hypothesis, as underpinning the partnering philosophy. Drawing on these theories, a model for partnering is proposed. The essential factors for, and processes in, partnering are then discussed. Evidence from the partnering literature is used for the preliminary

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validation of the proposed model. This paper concludes with some recommendations and directions for future research.

## The Industry Context

Differentiation in the construction industry, especially subcontracting, is a response to uncertainty arising from complexity (Eccles 1981a). This creates a situation of interdependence, which makes cooperation crucial to the success of construction projects. This complexity, uncertainty and interdependence have significant implications for the organization, control, and coordination of construction projects (Dubois and Gadde 2002; Eccles 1981a; Gidado 1996; Shirazi et al. 1996; Winch 2003). Typically, construction coping strategies, e.g., competitive tendering, arms-length contracts incorporating manipulative performance incentive and industry “communities of practice,” allowed these complexity and uncertainty dimensions to be addressed while guarding against opportunistic behavior (Bradach and Eccles 1989; Dubois and Gadde 2002).

As project complexity and uncertainty intensify (e.g., due to sophistication of human needs, technological advances, market pressures), extensive subcontracting ensues and interdependence deepens. These coping strategies soon become erosive in nature. Zero-sum competitive tendencies, arising from the market extent and increased differentiation, soon lead to fragmentation and adversarial relationships. Contracts are more complex and are routinely written or amended to exclude or transfer liability. As the focus shifts to the contract, short-term productivity (i.e., performance *quantity*) is favored over the long-term sustainability and quality considerations and innovation suffers (Dubois and Gadde 2002; Thompson et al. 1998).

Over time, these negative relationships and attitudes have become institutionalized (i.e., affective priming) and, arguably, part of the culture of construction (CIRC 2001; Egan 1998). This has resulted in stereotyping (of each other and of the professions), and even prejudice, among the various stakeholders (i.e., cognitive priming), which then constrains future relationships (Moore and Dainty 2001). This adversarial culture has been partly blamed for the poor uptake of new processes and management strategies in the construction industry (Bresnen and Marshall 2001). It is in this context that the idea of partnering was conceived and introduced. Partnering thus provides a promise of cooperation in an industry setting where commercial pressures traditionally encourage reticence, caution, and even adversarial relationships. But just how does partnering achieve this? The next two sections discuss two theories put forward in this paper as the conceptual basis for partnering.

## The Team Approach in Organizations

Construction is considered largely as a “team” industry (Anumba et al. 2002; Holti et al. 1999; Love et al. 1998; Male 2002; Turner 1997). It is usual for the representatives of the client, consultants, and constructors on a construction project to be called the “project team.” However, these are workgroups and do not necessarily become teams because someone calls them so (Albanese 1994; Fleming and Koppelman 1996; Ingram et al. 1997; Katzenbach and Smith 1993; Schermerhorn et al. 1998). In order to avoid confusion, terms like *integrated project team*, though tautological, are now gaining prominence in usage (Baiden et al. 2006; SFC 2003). Katzenbach and Smith (1993, p. 112) define a

team as “a small number of people with complementary skills who are committed to a common purpose, set of performance goals, and approach for which they hold themselves mutually accountable.”

The characteristics of optimal teams can be summarized as follows (Albanese 1994; Anderson and West 1998; Chow et al. 2005; Ingram et al. 1997; Katzenbach and Smith 1993; West 1990): (1) unitary focus and common goals; (2) interdependence, i.e., mutual respect, equal status, and equal opportunities for participation; (3) mutual accountability, i.e., common fate and a “no blame” culture; and (4) confluence, i.e., cohesion, seamless operation. These characteristics do not emerge easily. They are the result of the long and sometimes difficult interactions through which the members (1) cultivate collective understandings of the membership and nature of the task, and (2) negotiate and shape their purposes in response to the demand or challenge. This commitment-building process ultimately leads to the establishment of a social contract that binds the membership to a common purpose and approach (Katzenbach and Smith 1993; Schein 1980). Effective teams translate their shared purpose into specific performance goals and targets and periodically assess their joint performance against these targets. These outputs typically include both individual and “collective work products” (Katzenbach and Smith 1993). Mutual accountability grows out of the shared goals and cooperative interdependence engendered through the interactions of members (Johnson and Johnson 2003).

Task interdependency is a prerequisite (Anderson and West 1998; Shaw 1981). Members need to be selected on the basis of complementary technical/functional expertise and personality traits. Active training, expert facilitation, and coaching facilitate this commitment-building process (Drew and Coulson-Thomas 1996). Top management support must be both articulated and enacted. Without it, any sense of sharedness the team may develop will be largely subversive in character (Anderson and West 1998; West 1990). Confluence is a gestalt concept in which the boundaries of the self and the team merge. It is the optimal team climate for high performance and innovation (Anderson and West 1998; Reichers and Schneider 1990). Anderson and West (1994) define team climate as “the norms, atmosphere, practices, interpersonal relationships, enacted rituals and ways of working developed by a team.” Confluence manifests itself in the cohesion, synergy, and high performance of the team (Syer and Connolly 1996). It is the result of the long and, often, painful commitment-building process through which the team evolves and learns, particularly from its failures and successes (Katzenbach and Smith 1993).

The benefits of teamwork include, among others, breaking down barriers to effective communication and establishing cross-functional cooperation (Albanese 1994; Drew and Coulson-Thomas 1996; Pinto and Pinto 1990), which leads to trust and commitment (Katzenbach and Smith 1993) and, high performance and innovation (Albanese 1994; Fleming and Koppelman 1996; Katzenbach and Smith 1993; Lampman and Dimeo 1989; Pinto and Pinto 1990; Todyk 1990).

## The Contact Hypothesis

Researchers in social psychology have, for many years, studied the subject of prejudice and bias in intergroup contact situations to understand their causes and to develop effective strategies for mitigating them. An understanding of how such intergroup bias and conflict arises is provided by Tajfel’s (1978, 1982) and Tajfel

and Turner's (1979) work on social categorization and social identity theory. According to these theories, categorization of people into distinct groups is sufficient in itself to create intergroup bias in business as well as social settings. In addition, factors that increase intergroup bias tend to increase the saliency of the categorized representation. According to Tajfel and Turner (1979), an individual's need for positive self-identity motivates social comparisons that favorably differentiate ingroup from outgroup members. Ingroup members are viewed as being very similar to self, are evaluated more positively, and receive greater prosocial (i.e., helping) behavior than outgroup members. Such bias, however, leads to ingroup favoritism but, not necessarily, to outgroup discrimination (Gaertner et al. 2000). Support for these theories is also available in the context of construction (see Phua 2004; Phua and Rowlinson 2004b). A possible solution is therefore to seek strategies that could alter the categorization of ingroup and outgroup memberships.

At the core of this research effort is the *contact hypothesis* (Allport 1954). According to Allport (1954), four key conditions are essential for optimal (i.e., positive) intergroup contact: (1) equal group status within the contact situation; (2) common goals; (3) intergroup cooperative interaction; and (4) support of authorities, law, or custom. Field, archival, survey, and laboratory research, in different organizational and social settings, supports the contact hypothesis (see Gaertner and Dovidio 2000; Pettigrew 1998; Sherif and Sherif 1966). Pettigrew (1998) identifies four distinct but interrelated processes that operate through contact and mediate change: (1) learning about the outgroup; (2) changing behavior; (3) generating affective ties; and (4) ingroup reappraisal. It is these processes that create the sense of sharedness that reduces bias and promotes cooperation. Optimal intergroup contact requires time and repeated contact to achieve as it is related to the extent to which groups learn (Sherif and Sherif 1966).

Institutional and societal norms structure the form and effects of contact situations. According to Wilner et al. (1955), quoted in Pettigrew (1998, p. 68), "contact and perceived social climate tend to reinforce each other when their influence operates in the same direction, and to cancel each other out when their influence works in the opposite direction." If present, such normative support also makes the attainment of other optimal contact conditions easier (Gaertner and Dovidio 2000; Pettigrew 1998). Also, prior experiences and attitudes influence contact effects so that people with favorable prior experience of contact are more likely to seek, and those with bad experiences are more inclined to avoid, future contact (Pettigrew 1997, 1998). Positive events that may lead to mood elevation, like rewards associated with intergroup cooperative interaction or success, in turn lead to broader and more inclusive categorization (Gaertner and Dovidio 2000; Gaertner et al. 1993).

## What Partnering Does

The convergence of ideas from these hitherto related but separate lines of literature is remarkable. Taken together, they spell out what should be the essential factors for optimal project workgroup relationships in construction: (1) equal status or respect; (2) common goals; (3) cooperative workgroup interaction; and (4) support of the authorities and egalitarian norms. Confluence, optimal intergroup contact or good "project chemistry" (see Nicolini 2002), relates to how the team learns over time from failures and successes and is therefore an outcome of workgroup processes. These lines of literature clarify the context in which partnering in

construction should be viewed and understood. It is argued that partnering is a change mechanism for transforming a cross-functional project workgroup into a team. In other words, partnering has the potential to create the essential conditions for optimal contact between cross-functional project workgroups. Thus, rather than preexisting the partnering relationship, these essential factors are the outcomes of successful partnering (see also Cowan et al. 1992; Moore et al. 1992; Mosley et al. 1991). Albanese (1994) refers to these essential factors or outcomes of successful partnering as *process benefits*. These process benefits are the vehicle through which the *content benefits* (e.g., cooperation, improved performance, and innovation) are achieved.

Based on the foregoing, Fig. 1, adapted from the common ingroup identity model of Gaertner et al. (1993), has been developed to present a model of partnering and its consequences on cooperation and project performance outcomes. The left-hand column of Fig. 1 depicts the dominant industry conditions, as discussed earlier, that are the genesis of the notion of partnering. The second column outlines the key components of partnering that are important in helping project workgroups attain the essential conditions for optimal contact. When attained, these essential factors (see the third column of Fig. 1) transform a workgroup into a high-performing team. The right-hand column depicts the benefits or consequences of partnering. While the focus in construction research has been mainly on demonstrating the content benefits of partnering (e.g., outcomes on cost, quality, and schedule) as its focal selling aspect, it is important to also note the many mediating cognitive and affective processes (e.g., trust, positive affect) involved (Gaertner et al. 1993; Pettigrew 1998). The next section explains, on the basis of the proposed model, the key components of partnering practice and their importance.

## Explaining the Key Components of Partnering Practice

The key components of partnering practice include (Hellard 1995; Schultzel and Unruh 1996; Thomas and Thomas 2005): Workshops and champions' meetings; charters and decision-making procedures; incentives; and periodic performance evaluation. These are explained in light of the proposed theory on partnering.

### *Workshops and Champions' Meetings*

The partnering workshops and periodic champions' meetings provide opportunities for project workgroups to interact in a cooperative and nonthreatening environment. These interactions kick-start the process of learning about and understanding one another's interests and concerns, which ultimately enables the project actors to collectively create, shape, and own a set of common goals and approach for the project (Katzenbach and Smith 1993; Pettigrew 1998). Senior management's expression of support for this process is crucial for its success. Selecting members with the necessary technical or functional expertise is important not least because competence strongly predicts task performance (Motowidlo and Van Scotter 1994) and trust (Das and Teng 1998), both key outcomes as depicted in Fig. 1. Training, expert facilitation, and coaching help this process by encouraging honest and frank communication and problem solving in workgroups (Drew and Coulson-Thomas 1996; Katzenbach and Smith 1993). The champions' meetings serve to perpetuate this commitment-building or realignment process throughout the life of the project.

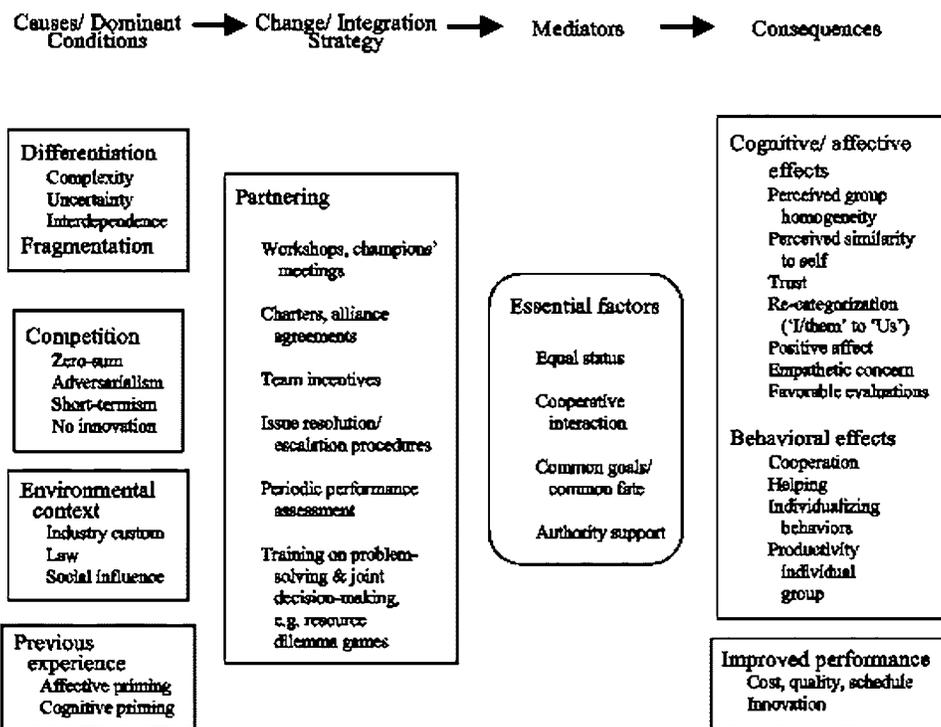


Fig. 1. A model of partnering and its effects on project performance (adapted from Gaertner et al. 1993)

### Charters and Problem-Solving Procedures

Arguably, the problem in construction is a lack of recognition, rather than the absence, of task/functional interdependence. This fragmentation is a direct result of the industry context described earlier. Partnering thus seeks to force recognition of interdependence. The partnering charter and the joint decision-making procedures, otherwise called "issue escalation ladder," provide testament to a joint recognition of interdependence by the project workgroup members. They are a testament to the social contract that binds the project workgroup to develop, and commit to, a common purpose and approach for achieving the project. The issue escalation ladder provides a mechanism for ensuring and sustaining cooperative interaction and for channeling controversy productively, however divisive members' differences may be. Mutual accountability grows naturally out of working together with a common purpose, goals, and approach (Katzenbach and Smith 1993; Pettigrew 1998).

Top management support is required to reinforce the commitment-building process among project workgroup members. This support must be both articulated and enacted. Using partnering forms of contract or incorporating partnering-friendly amendments into traditional contracts also provides articulated support. Probably even more important is the provision of enacted support for cooperation, which includes some budget authority and authority to make technical decisions (or "do deals") independent of direct functional interference. Such support is vital for successful implementation of the popular principle of resolving disputes at the lowest possible level and, is a key feature that distinguishes teams from committees (Anderson and West 1998; West 1990). Without the necessary authority support, teams function as committees (Fleming and Koppelman 1996) and any shared goals, approach, or climate developed will be largely subversive in character (Gaertner and Dovidio 2000; Pettigrew 1998).

### Team Incentives

Rewards associated with pleasant cooperative interaction or successes enhance mutual attraction and lead to more favorable and inclusive categorization of the workgroup memberships (Drew and Coulson-Thomas 1996; Gaertner et al. 1993). These rewards range from very simple things like barbecues, field trips, or official recognition of achievement in project newsletters and electronic mail, to the sharing of bonuses for achieving or exceeding performance targets. These team incentive arrangements usually operate independently of any performance incentives in the underlying legal contracts between the parties. One (relatively) successful application of team incentives in construction is in project alliancing. Project alliancing is, probably, best described as a deeper form of partnering, which contractually links the financial success of each of the parties directly to the overall success of the project.

The alliance agreement is drawn up as an overarching legal agreement (Barlow 2000; Halman and Braks 1999; Naoum 2003) or constitutes the sole contract (Hauck et al. 2004; Rowlinson et al. 2006), which binds the parties to agreed targets, risk sharing, and reward mechanisms. In the former arrangement, the underlying individual traditional contracts between the client and the suppliers gives the client the option of continuing the project conventionally should the alliance agreement fail (Barlow 2000; Halman and Braks 1999). However, in both arrangements the alliance agreement provides both articulated and enacted support for cooperation by creating, and facilitating the development of a deepened and real, as opposed to a notional, sense of joint/common fate (Barlow 2000; Bower and Merna 2002; Halman and Braks 1999; Hauck et al. 2004; Rowlinson et al. 2006). These are essential factors in achieving team cohesion or confluence, as shown in Fig. 1.

## Periodic Performance Assessments

Translating its common purpose into specific performance goals and associated targets allows the team to chalk up small successes as it pursues its broader purpose (Katzenbach and Smith 1993). The mutuality, specificity, clarity, measurability, and attainability of these performance goals and targets are therefore crucial (Katzenbach and Smith, 1993; Liu and Fellows 2001; Locke and Latham 1990). These are typically addressed during the value management sessions organized as part of the initial partnering workshops and reinforced during follow-up workshops and champions' meetings. These goals facilitate communication and constructive controversy and are "symbols of accomplishment that motivate and energize" (Katzenbach and Smith 1993, p. 113). Periodic performance assessments provide vital feedback in real time, which facilitates group learning and improvement to influence future performance (Katzenbach and Smith 1993). Sherif and Sherif's infamous Robbers' Cave field experiment showed that effectiveness related to the extent to which the groups learn from successes and failures in intergroup cooperation and rivalry. Although this sort of learning is attempted during initial partnering workshops through resource dilemma games, the consequences of real life successes and failures are both graphic and compelling.

## Validation of Model of Partnering

Varied research in construction supports the proposed model. These include industry sponsored research into partnering (e.g., Bennett and Jayes 1995; Chan et al. 2004b; CII 1991; Lenard et al. 1996), as well as general research on partnering (e.g., Black et al. 2000; Chan et al. 2004a; Cheng et al. 2000; Conley and Gregory 1999; Cook and Hancher 1990; Fisher 2004; Glagola and Sheedy 2002; Larson and Drexler 1997; Ng et al. 2002), alliancing (Barlow 2000; Barlow et al. 1997; Halman and Braks 1999; Hauck et al. 2004; Rowlinson et al. 2006) and relational contracting (e.g., Davis 1999; Hampson and Kwok 1997; Rahman and Kumaraswamy 2002). Many studies also highlight the roles of partnering as a team-building mechanism and as a catalyst for cultural change (e.g., Abudayyeh 1994; Albanese 1994; Beach et al. 2005; Brown 1994; Gardiner and Simmons 1998; Miles 1996; Moore et al. 1992; Mosley et al. 1991; Nicolini 2002; Wilson et al. 1995; Winch 2000). However, these studies also create problems, which stand in the way of uniform understanding of the partnering concept. These issues are next discussed and clarified in the context of the proposed model of partnering in Fig. 1.

## Partnering Critical Success Factors and Outcomes

Rockart (1982, p. 4) defines critical success factors as "those few key [factors] absolutely necessary to reach goals." It is clear from this definition that any study of critical success factors without conceptual-definitional clarity is likely to be counterproductive. Many of the research studies on partnering mention one or more of the essential factors for optimal contact listed in Fig. 1 as critical success factors for partnering. From the foregoing, it is clear that these *cannot* be critical success factors for partnering. Rather, they are the outcomes or process benefits of successful partnering. Partnering is the mechanism through which these conditions for optimal contact are induced and nurtured. Thus, taken to an extreme, partnering may well be viewed as an experiment in

social psychology. Adopting a critical success factors perspective, and as argued in this paper, these factors are critical success factors for optimal cross-functional workgroup cooperation.

## The Role of Trust

Numerous studies mention trust and/or its correlates as critical success factors for partnering (e.g., Black et al. 2000; Cheng et al. 2000; Fisher 2004; Larson and Drexler 1997). However, as indicated in the consequences section (top, right) of Fig. 1, trust is a secondary outcome of partnering. In other words, trust need not preexist the partnering relationship. As indicated in the precontact experience box (bottom, left) of Fig. 1, trust can preexist a partnering relationship and may result from previous favorable contact experiences or representations (Pettigrew 1998), or it may be spontaneous, resulting from "faith in humanity" (McKnight et al. 1998). When present, trust creates norms of obligation and cooperation and minimizes transaction costs (Jones and George 1998; Korczynski 2000). Research also shows that norms of obligation and cooperation lead to both interpersonal and interorganizational trust (Barney and Hansen 1994; Das and Teng 1998; Jones and George 1998; Rousseau et al. 1998; Sandler 1993). Also, strategies of consistent cooperative behavior influence all dimensions or systems of trust (Das and Teng 1998; Jones and George 1998; McKnight et al. 1998). Admittedly, the dynamic and cyclical nature of trust makes an understanding of its development somewhat elusive. But, a closer look at trust development shows that the long term is built from the short term, rather than vice versa (Oberschall and Leifer 1986). Besides, if trust were a prerequisite, then the introduction of partnering would not even be necessary in the first place. Therefore, trust is more of a consequence of, than a means for, of achieving cooperation (see also Abudayyeh 1994; Albanese 1994; Katzenbach and Smith 1993; Lazar 2000; Wood and McDermott 2001).

## Contractual Incentives

The use of performance incentives in the underlying contracts between contracting parties has also been cited as a critical success factor for partnering. Research shows that incentives do drive behavior (e.g., Ashley and Workman 1986; Kohn 1993; Tyler and Blader 2000). However, research also shows that their use can be problematic and sometimes even counterproductive. The discourse on performance incentives usually confounds firms with the managers representing them (see Bresnen and Marshall 2000a,b). Agency theory, which underpins the use of performance incentives, assumes that agents will shirk unless their actions contribute directly to their own economic self-interest. Therefore, shirking can only be mitigated through monitoring combined with contracts (incorporating sanctioning and reward mechanisms) that appeal to their self-seeking nature (Simon 1991). However, here the agent is a firm and not the manager(s) representing that firm. Even at the top executive levels of firms there is considerable opportunity for discrepancy between the goal of owners (i.e., profit) and the goals of managers (Oberschall and Leifer 1986; Simon 1991). No doubt, managers have an interest in the long-term success of their organizations. However, the link between such performance incentives and the mitigation of the pursuit of managerial short-term self-interest is, rather, indirect and tenuous [for an explication of this argument, see Kohn (1993); Pfeffer (1994, 1997), Simon (1991), and Tyler and Blader (2000)].

Most important, performance incentives can work against the objectives of the project organization. With managers making positional commitments to defend or protect the interests of their respective firms, performance incentives can lead to suboptimal

outcomes for the project. They encourage a myopic focus on the specified tasks that influence the outcomes to which they are tied, reduce risk-taking behavior, and hence limit performance quality and innovation (Kohn 1993; Pfeffer 1997; Simon 1991; Thompson et al. 1998). Measurement problems further complicate the use of performance incentives on construction projects. Uncertainty means that a clear and precise definition of performance standards/ specifications in advance is both impossible and undesirable. Intense interdependence makes it difficult to isolate and measure to a reasonable level of accuracy each firm's contribution to an outcome or liability for a default. With complexity and uncertainty being the hallmarks of all but, perhaps, the simplest construction projects, even the most "objective" indices of performance are at best inadequate and highly corruptible (Ferne et al. 2006; Kohn 1993; Simon 1991). Ashley and Workman (1986) found that although overall performance (quantity) was marginally greater with their use, contractual incentives created significantly more contractual disputes between the contracting parties. Thompson et al. (1998) concluded that rather than a means to unite the parties, contractual incentives serve as "a wedge to drive distance between them" (p. 36).

The objective of contractual incentives ought to be to motivate the various project actors to identify with the project's objectives. Without prejudice to the individual preferences of clients or procuring agents, a project's objectives are best served if the incentive arrangement results in a sharing of, rather than merely transferring, motives. This underscores the famous principle of "shared risks unify motives" (Barnes 1981; Bower et al. 2002). The "sharedness" of motive is affected by how responsibilities and risks are apportioned, the reimbursement and governance structures in place (Bower et al. 2002; Thompson et al. 1998). This leads back to the central thesis of this paper: By facilitating the attainment of optimal contact factors, partnering creates a sense of superordinate identification with the project organization. The objective function for all managers is, therefore, the optimization of the project's objectives. This explains the move toward the use of "partnering-friendly" contracts that emphasize the fairness of risk/reward arrangements. Some go a step further and seek to prescribe the behavior and relationship among the parties (e.g., ICE 1993). Research also shows that judgments on the fairness of procedures experienced and outcomes received affect perceptions of status (or respect) and trust (Gaertner and Dovidio 2000; Kadefors 2005; Tyler and Blader 2000). While the legal basis of some of the provisions of these contracts has been challenged (e.g., see Cox and Thompson 1996) and their practical import is yet unknown, these contracts are indicative of articulated support for cooperation (see Anderson and West 1998).

### **Early Involvement of "Partners"**

This facilitates the above-described group processes and is, perhaps, a common sense approach dictated by systems thinking and knowledge of the construction project value and cost cycles (Bower 2002; Male 2002).

### **Partnering and Strategic Alliances**

Partnering and strategic alliances are forms of relational contracting (see Bradach and Eccles 1989; Macneil 1978; Rahman and Kumaraswamy 2002; Williamson 1985). However, there is a conceptual difference between them. Assuming a continuum exists of possible relational contracting arrangements (as suggested in Bennett and Jayes 1998; Thompson et al. 1998), although such a view has been argued to be misleading (see Bradach and Eccles 1989),

partnering and strategic alliances are the poles of this continuum. A strategic alliance is a long-term interorganizational arrangement for mutual benefit, which is based on equivalence and high complementarity (Cox 1996; Hampson and Kwok 1997; Kanter 1994). Because of their long-term nature, strategic alliances facilitate interorganizational learning, which is important for the commitment-building process and increases the chance of achieving optimal contact (Katzenbach and Smith 1993; Love et al. 2002; Pettigrew 1998). In other words, a strategic alliance is a cooperative relationship between parties when some shared expectation about the future (i.e., *trust*) exists. There is evidence of the existence of trust-based relationships in the construction industry between main and subcontractors (e.g., Eccles 1981b; Hampson and Kwok 1997; Kale and Arditi 2001) and also between clients and main contractors (e.g., Barlow 2000; Bennett and Jayes 1998; Loraine 1994; Tse 1984).

However, the future is rarely preordained. Instead, the future is built on the basis of past and present actions. As Oberschall and Leifer (1986, p. 248) put it: "a lot of effort is required before there is an indefinite transaction future ahead to constrain exploitative behavior." Asset specificity and uncertainty can grow out of such effort, rather than being present from the start, and facilitate a trust relationship. Many of the strategic alliances or term arrangements in the offshore construction sector grew out of many successful competitively let contracts, which themselves lasted several years (Loraine 1994). This underlines the crucial role of partnering as a transformative mechanism through which such a future can be constructed (see Fig. 1). Partnering provides a mechanism through which to foster cooperation in a project environment where trust is limited or nonexistent. This favorable contact then increases the likelihood and attractiveness of future contact and constitutes the foundation of a trust-based relationship (Albanese 1994; Pettigrew 1998; Spatz 2000).

### **Industry Level Cultural Transformation**

The ultimate aim of most project managers is to motivate their workgroups to change or modify their behaviors in ways that will lead to and/or facilitate the achievement of the project's objectives. However, for others, e.g., governments and large clients, who are concerned that the construction industry as a whole is too adversarial and therefore needs to change, the goal extends beyond the needs of a single project to an effort to catalyze a cultural transformation. But some question how, if at all, partnering can transform the culture of construction (e.g., Bresnen and Marshall 2000b; Fisher and Green 2001). One of the major arguments is that behavioral change is not necessarily due to or indicative of a cultural transformation. However, behavioral change often precedes attitudinal change. The dissonance between new behavior and old prejudices is resolved by revising one's attitudes, which process also benefits from extended and/or repeated contact (Pettigrew 1998). As cooperation between organizations ultimately reduces to cooperation between individual managers from the different organizations (Smith et al. 1995), it appears that the key question is whether or not contact effects generalize to other members not present in the project situation and also across different settings.

According to Pettigrew's (1998) reformulated intergroup contact theory, three sequential strategies allow generalization of contact effects to the outgroup. These are decategorization (see Hewstone and Brown 1986), salient categorization (see Brewer and Miller 1984), and recategorization (see Gaertner et al. 1993).

Decategorization reduces bias by diminishing the salience of original ingroup/outgroup categorizations. Recategorization results in a one-group identity or a superordinate (inclusive) identity that highlights the similarities among the interactants and thus obscures the “them-and-us” boundary (Gaertner et al. 1993). These processes require a long-term perspective facilitative of individual and group learning (see also Kanter 1994; Love et al. 2002). Progression through these three stages of categorization is not automatic and recategorization into a single group is often not attained (Pettigrew 1998). In the specific case of construction, recategorization into a single group may not even be desirable since the original organizational identities of workgroup members cannot be forsaken. As Gaertner et al. (1993) demonstrate, it is possible to maintain a dual representation in which both superordinate and original group identities are simultaneously salient.

Pettigrew (1997) found that intergroup friendship has the potential to invoke all the mediating processes required to achieve optimal intergroup contact. As a result, Pettigrew (1998) proposed a fifth condition for the contact hypothesis: *Friendship potential*. This opportunity implies the potential for extended and/or repeated contact in a variety of business and social contexts in which the close interactions lead to self-disclosure and other individualizing experiences (Gaertner and Dovidio 2000; Pettigrew 1998). The importance of close personal relationships in different sectors of economic life has been demonstrated by many studies (e.g., Bradach and Eccles 1989; Granovetter 1985; Phua and Rowlinson 2004a). The importance of the time dimension to the group learning process makes optimal contact difficult to achieve within the lifespan of a single project (see Cook and Hancher 1990; DeVilbiss and Leonard 2000). However, the role of partnering in initiating and facilitating this commitment-building process is very significant. It creates the foundation on which the future is built and is a catalyst for change. There is also evidence from the partnering literature that projects that did not satisfy most of the essential contact conditions reported improved cooperation and where these were present, performance expectations were met or even exceeded. For many project managers, this is a significant achievement in itself in an industry where cooperation (and hence, good performance) is an aberration.

## Conclusions and Directions for Future Research

This paper has presented a model (see Fig. 1) that provides conceptual-definitional clarity on partnering. The relevance of the key processes, tools, and techniques involved in, and outcomes of, partnering as well as the link to cooperation and project performance have been discussed. By drawing on two related but separate lines of literature in social psychology, four essential factors for optimal cross-functional workgroup cooperation have been identified. The role of partnering as the transformative mechanism through which these essential factors are induced and nurtured has been explained and corroborated with evidence from the published literature on the concept. It is believed that direct testing of the model will be required before it can be fully validated and deployed. But even in this state, the model can clearly help project managers to focus their attention on the necessary aspects of workgroup processes that lead to high cooperation and good performance.

By clarifying the role and goals of partnering, the stage is set for a more focused and purposeful study of other key aspects of the concept. This model provides some useful indications on the direction of such research. While support for the relationships

portrayed in the model is readily available, there is still a need to test the strengths of these relationships in the context of the overall model. Another reason why the model could benefit from some forms of direct testing is because some of the evidence on which these relationships have been determined falls outside the realm of construction, thus leaving open the question of their validity in the context of construction. One obvious limitation to direct testing, however, is the fact that the experimental nature of these study designs makes direct replication in construction management research almost impossible. Still, conceptual replication through correlational studies is still considered possible. The internal validity of any significant correlations is not an issue since the directions of causality have already been determined in these experimental designs.

Additional support is required for the link between partnering and the four essential factors hypothesized in the model. Empirical evidence of the link between the essential factors and cooperation is needed, although anecdotal support abounds. The same is true of the relationship between cooperation and project performance outcomes. Phua and Rowlinson (2004a) provide some support for this relationship in their grounded study of critical success factors for project success. However, their measure of cooperation taps only one dimension of the construct and other factors identified in their study confounded the cooperation effects. But even this limited measure of cooperation explained about 28% of the variability in the dependent variable “project success,” defined in terms of meeting budget, schedule, and quality performance targets. More evidence is therefore required in this regard. Wagner (1995) provides partial support for the moderating effect of culture on cooperation, but Phua and Rowlinson’s (2004b) study did not establish any such moderator role for culture. Therefore, some direct measure of the influence of culture on the hypothesized relationships in the model will be very useful. This can be considered in future research.

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