A Contingent Theory Of Governance For The Global Project Organization: The Effect Of Uncertainty And Diversity On Order And Conflict

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A Contingent Theory Of Governance For The Global Project Organization: The Effect Of Uncertainty And Diversity On Order And Conflict

Abstract
This dissertation explores how complex organizations operate in complex environments. Specifically, this dissertation aims to build a more complete view of how the project organization—a group of firms that comes together to execute a common goal—navigates relationships with the partners that comprise it and navigates the stakeholder relationships in the external environment in which it is embedded. In examining these complex organizations, I develop theory that explains how composition and governance differ for organizations comprised of multiple partners, and how and why key mechanisms—such as conflict—affect their ability to be successful. To investigate these questions, I draw on a dataset comprised of approximately 3000 project organizations comprised of over 100,000 partners that operate in 135 countries from the years 1999-2019. This dataset includes over 400,000 pages of project reports, which are analyzed through natural language processing, as well as the corpus of media reports reported within 50km of the projects. As such, this dissertation builds a contingent theory of the governance of project organizations through an empirical view of the project organization on a size and scale not previously seen in management research. The first chapter of this dissertation examines three diversity types – variety of functional roles, separation in institutional values, and financial disparity – to show how each type impacts conflict between members of the project organization and the project organization and external stakeholders. Furthermore, this work shows that under joint conditions of diversity, conflict can be reduced. The second chapter explores the plural governance of the project organization and examines the alignment of governance choice, uncertainty, and performance. Building on transaction cost theory, this chapter shows that the project organization experiences better performance under conditions of environmental uncertainty when it exhibits greater hierarchy, but only when the firm at the top of the hierarchy is knowledgeable of the external environment. Under conditions of behavioral uncertainty, the project organization experiences better performance when it has less hierarchy, but only in certain types of projects. The final chapter shows under what conditions development projects incite conflict between political, social and economic stakeholder groups. Institutional distance and non-competitive selection of project organization members exacerbate external conflict under conditions of elite bias, that is, when the project organization is not inclusive in its network of stakeholder relationships. Taken together, these three chapters offer a contingent theory of governance of the project organization by answering when and under what conditions the concentration of resources and relationships drives (or mitigates) conflict and affects the performance of the project organization.

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A CONTINGENT THEORY OF GOVERNANCE FOR THE GLOBAL PROJECT
ORGANIZATION: THE EFFECT OF UNCERTAINTY AND DIVERSITY
ON ORDER AND CONFLICT

Rachel Pacheco
A DISSERTATION
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For the Graduate Group in Managerial Science and Applied Economics
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A CONTINGENT THEORY OF GOVERNANCE FOR THE GLOBAL PROJECT ORGANIZATION: THE EFFECT OF UNCERTAINTY AND DIVERSITY ON ORDER AND CONFLICT

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Rachel Barba Pacheco

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To my family.
This dissertation, and my academic journey more broadly, was a marathon. There were fits and starts, false endings, and a finish line that seemed impossible to reach. But, luckily, I had a community of support along this entire journey that made this dissertation possible.

In particular, I wish to thank my dissertation advisor and chair, Vit Henisz. I was told to choose a dissertation advisor who can “get you through the program,” not someone whose research I find interesting and inspiring. Luckily, I didn’t follow this advice. Vit is the rare combination of an advisor who is brilliant and demanding, yet nurturing, thoughtful and generous in his guidance. Without Vit, there would be no dissertation and my academic journey would have been a short one. My other committee members, Zeke Hernandez, Martine Haas and Sinziana Dorobantu were equally as generous, committed and helpful in my success. In particular, I am so thankful for their encouragement during a wild final year overtaken by COVID and virtual work. At critical junctures, Matthew Bidwell and Tyler Wry provided practical insights and advice, and the rest of the Management Department, in particular, Nancy Rothbard, Marshall Meyer and Dan Levinthal cheered me on along the way.

Lastly, I wish to thank my family, which includes the family I was born into and the family I have chosen. I am constantly in awe of the love, support and encouragement that my family provides. Thank you.
ABSTRACT

A CONTINGENT THEORY OF GOVERNANCE FOR THE GLOBAL PROJECT ORGANIZATION: THE EFFECT OF UNCERTAINTY AND DIVERSITY ON ORDER AND CONFLICT

Rachel Pacheco
Witold J. Henisz

This dissertation explores how complex organizations operate in complex environments. Specifically, this dissertation aims to build a more complete view of how the project organization—a group of firms that comes together to execute a common goal—navigates relationships with the partners that comprise it and navigates the stakeholder relationships in the external environment in which it is embedded. In examining these complex organizations, I develop theory that explains how composition and governance differ for organizations comprised of multiple partners, and how and why key mechanisms—such as conflict—affect their ability to be successful. To investigate these questions, I draw on a dataset comprised of approximately 3000 project organizations comprised of over 100,000 partners that operate in 135 countries from the years 1999-2019. This dataset includes over 400,000 pages of project reports, which are analyzed through natural language processing, as well as the corpus of media reports reported within 50km of the projects. As such, this dissertation builds a contingent theory of the governance of project organizations through an empirical view of the project organization on a size and scale not previously seen in management research. The first chapter of this dissertation examines three diversity types – variety of functional roles, separation in institutional values, and financial disparity – to show how each type impacts conflict between members of the project organization and the project organization and external stakeholders. Furthermore, this work shows that under joint conditions of diversity, conflict can be reduced. The second chapter explores the plural governance of the project organization and examines the alignment of
governance choice, uncertainty, and performance. Building on transaction cost theory, this chapter shows that the project organization experiences better performance under conditions of environmental uncertainty when it exhibits greater hierarchy, but only when the firm at the top of the hierarchy is knowledgeable of the external environment. Under conditions of behavioral uncertainty, the project organization experiences better performance when it has less hierarchy, but only in certain types of projects. The final chapter shows under what conditions development projects incite conflict between political, social and economic stakeholder groups. Institutional distance and non-competitive selection of project organization members exacerbate external conflict under conditions of elite bias, that is, when the project organization is not inclusive in its network of stakeholder relationships. Taken together, these three chapters offer a contingent theory of governance of the project organization by answering when and under what conditions the concentration of resources and relationships drives (or mitigates) conflict and affects the performance of the project organization.
# TABLE OF CONTENTS

ACKNOWLEDGEMENT ........................................................................................................ IV

ABSTRACT ....................................................................................................................... V

LIST OF FIGURES .......................................................................................................... IX

LIST OF TABLES ............................................................................................................ IX

INTRODUCTION ............................................................................................................. 1

THEORETICAL APPROACH ............................................................................................ 5

EMPIRICAL APPROACH ................................................................................................. 23

CONTRIBUTIONS TO EXISTING WORK ......................................................................... 25

CHAPTER 1: THE GOOD FIGHT: CONFLICT AND THE MULTIPARTNER ALLIANCE .............................................................. 29

THEORY & HYPOTHESES ............................................................................................... 35

METHODS & SETTING ................................................................................................. 46

RESULTS ....................................................................................................................... 58

CONCLUSIONS & DISCUSSION .................................................................................... 64

TABLES & FIGURES .................................................................................................... 70

CHAPTER 2: BEING BOTH: GOVERNANCE AND UNCERTAINTY IN THE TEMPORARY PROJECT ORGANIZATION ................................................................. 74

THEORY & HYPOTHESES ............................................................................................. 79

METHODS & SETTING ................................................................................................. 90

RESULTS ..................................................................................................................... 100

CONCLUSIONS & DISCUSSION .................................................................................. 103

TABLES & FIGURES .................................................................................................. 108

CHAPTER 3: DEVELOPING CONFLICT: ELITE BIAS IN THE STAKEHOLDER NETWORKS OF GLOBAL PROJECTS ................................................................. 111
LIST OF FIGURES

Figure 1: Share of Financial Revenues by Partner ................................................................. 70
Figure 2: Project Descriptions ................................................................................................ 70
Figure 3: Marginal Effects on Performance ......................................................................... 72
Figure 4: Project Performance Over Time .......................................................................... 73
Figure 5: Predicted Values by Hierarchy and Uncertainty .................................................. 110

LIST OF TABLES

Table 1: Descriptive Statistics and Correlation Matrix ...................................................... 70
Table 2: Regression Model Predicting Conflict ............................................................... 71
Table 3: Segments of High Conflict Projects .................................................................. 73
Table 4: Descriptive Statistics and Correlation Matrix .................................................. 108
Table 5: Predicting Performance .................................................................................... 109
Table 6: Summary Statistics and Correlation Matrix ...................................................... 141
Table 7: Results Predicting System-Level Conflict ......................................................... 142
Table 8: Results Predicting System-Level Conflict (No Lagged Conflict) ....................... 143
Table 9: Results for Subsamples ..................................................................................... 144
Table 10: Results Predicting System-Level Conflict with IGO Exclusion ....................... 145
Table 11: Results Predicting Conflict Directed Toward IGO ........................................... 146
Table 12: Predicted Values of Cooperation Conflict ....................................................... 147
INTRODUCTION

A central question in strategic management research is how firms build relationships and cooperate with other firms to enter a new market, create a new product, or form a new entity to combine existing capabilities. While much of the research addressing this topic has focused on relationships and the dynamics that arise between two firms, a growing research stream examines relationships between firms in a group, and between this group and other external partners. A group of firms that comes together to execute on a common goal or mission can be a multipartner alliance (Dorobantu, Lindner & Müllner, 2019), multilateral alliance (Li, Eden & Josefy, 2017), quasi-firm (Eccles, 1981), meta-organization (Gulati, Puranam, & Tushman, 2014), global project organization (Scott, Levitt & Orr, 2011), temporary project organization (Bakker, 2010), or ephemeral organization (Lanzerra, 1983), among other names. Though it should be noted that differences amongst each of the types listed can exist, broadly, these project organizations are “not bound by authority based on employment relationships, but characterized by a system-level goal” (Gulati, Puranam, & Tushman, 2014: 573), and as such, differ from traditional two-party relationships in their complexity, coordination, temporal nature, social exchange processes and approach to governance (Gulati, 1995; García-Canal, 1996).

To date, research on these complex interorganizational relationships have focused on what drives performance and dissolution (Heidl, Steensma & Phelps, 2014, Pacheco-de-Almeida, Hawk & Yeung, 2015), how firms choose partners to form relationships (Zhang, Gupta, & Hallen, 2017), and to a lesser extent, how these project organizations navigate their external environments (Dorobantu, et al, 2019). For example, there is a significant body of work exploring how differences amongst firms in these project organizations (e.g., differences in

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1As noted, the nomenclature to denote this organizational form is wide. For this Introduction, I use the term “project organization” to encompass this form.
industry, function, national background) reduce trust, increase coordination costs, and inhibit the ease at which partners can communicate and share knowledge (Gulati, 1995; Parkhe, 1991; Lavie & Miller, 2008; Goerzen & Beamish, 2005), and how this composition impacts outcomes, including formation, innovation, financial return to partners, and dissolution (Wuyts & Dutta, 2014; Jiang, Tao & Santoro, 2010; Zhang, Gupta & Hallen, 2017, Dorobantu, et al 2019).

Although past research has advanced our understanding of how a group of firms comes together to cooperate and execute on a single project or goal, this work remains limited in our understanding of the mechanisms that govern these relationships (Davis, 2016). It is widely agreed that the project organization relies heavily on social mechanisms, relational governance and trust to be successful, given its lack of formal authority and formal hierarchy (Clegg, et al, 2002; Majchrzak, Jarvenpaa, & Hollingshead, 2007; Maurer, 2010). And that informal authority, based on control over resources, reputation, or status can shape how the project organization operates (Gulati, Puranam & Tushman, 2012). Yet, we lack an understanding of how the informal governance of these relationships, as well as their composition, impact the ability of the project organization to avoid harmful conflict and build trust (Davis, 2016).

An example from my research setting motivates this exploration.

The Kerala State Transport Project was a $336 million project aimed at strengthening the road network of the Indian state of Kerala. Numerous organizations—including international and local firms—worked to complete the multi-year project, with the bulk of the road work being undertaken by a Malaysian-based company, PATI, and an Indian-based firm, Bhageeratha Engineering, Ltd. Yet, despite successful funding and planning on the front end of the initiative, the project overran its initial timing and financial estimates and was plagued by corruption and nepotism. Contractors fought with local government officials who refused to hand over land required for the project. Local laborers clashed with the local and international companies over on-time salary payments. And partners from PATI and Bhageeratha repeatedly came into conflict
because of their different operating norms. Besides time delays and financial loss, the project embarrassed the local and national governments, raised reputational issues for its primary funder, the World Bank, and sadly resulted in the fatality of the Malaysian project manager. ²

As illustrated in the above example, the firms within the project organization must build relationships with each other, build relationships with external stakeholders, and navigate an uncertain and often changing external environment. Specifically, I examine interorganizational conflict as a primary mechanism that affects the relationships between firms and between external partners. As long explored by sociologists, unequal access to resources drives conflict (Blau, 1964), as differences incite competition, harm trust-building, and inhibit communication (Sidanius & Pratto, 2004). Yet, as explored by the dominance complementarity view, unequal access to resources also promotes structure, efficiency, and more effective resolution of conflict within a group (Kiesler, 1983; Tiedens & Fragale, 2003). In the project organization, this emphasis on structure and efficiency is known as the “order view” of the project organization, which posits that the concentration of resources and greater hierarchy help with the complexity and coordination of the disparate members of the project organization and efficient resolution of decisions within the project (Van Marrewijk, Ybema, Smits, Clegg & Pitsis, 2016; Winch & Leiringer, 2016). On the other hand, the “conflict view” of the project organization, which is aligned with social dominance theory, highlights that unequal access to resources instigates conflict and competition, as project members vie for limited resources, and push again the partners in control (Van Marrewijk, et al 2016). Given the importance of trust-building and other social mechanisms for success (Eccles, 1981), there are limits and downsides to resource

²During the course of the project, the Malaysian Chief Project Manager of PATI committed suicide; some believed it was due to his inability “to cope with the unorthodox ways of business in India.”
http://indiatoday.intoday.in/story/engineer-lee-see-commits-suicide/1/180075.html
concentration, decision-making by fiat, and a strong-owner amongst the members of the project organization (Winch & Leiringer, 2016).

This dissertation does not attempt to determine whether the control and concentration of resources is good or bad for the project organization, and as such, whether the conflict view or the order view should be upheld. Rather, this dissertation puts forth a contingent theory of the governance of the project organization by examining when and under what conditions relative differences amongst partners and stakeholders drive (or mitigate) conflict and impact performance. In the first chapter of this dissertation, I extend diversity theory (Harrison & Klein, 2007; Jehn & Mannix, 1989; Stirling, 2007) to the project organization and examine when disparity of financial resources drives or reduces conflict between members of the project organization, and between the project organization and external stakeholders. In the second chapter, I examine the effect of hierarchical control on the performance of the project organization, and build on transaction cost theory (Williamson, 1975, 1985; Eccles, 1981) to understand when hierarchy helps or harms in mitigating environmental and behavioral uncertainty. The final chapter examines how the composition and selection of members of the project organization exacerbates the effect of elite bias—that is the concentration of relationships in the stakeholder network—on conflict between external stakeholder groups (Henisz, 2019). The three chapters of this dissertation heed the call to examine these complex relationships through a contingency perspective (Schilke & Goerzen, 2010; Schilling & Phelps, 2007; Wassmer, 2010): not all project organizations may benefit equally from relative differences in the resources across their partners.

This dissertation explores the relationships firms build and maintain in order to work together on complex projects and in complex environments. I explore how the composition and governance of these project organizations impact their performance; and explore how the dynamics of the relationships—specifically conflict—impact performance. Furthermore, I
examine the external context in which these project organizations operate to further understand how and why the external relationships the project organization navigates impact the organization and vice versa. Taken together, these three chapters demonstrate the importance of the processes that enable the collaboration and cooperation of firms that comprise the project organization (Davis, 2016), and demonstrate the importance of the external environment when examining the project organization (Grabher, 2004). Specifically, these three chapters highlight the importance of relative differences in control and resources amongst partners and stakeholders in how the project organization operates. Disparity of financial resources, hierarchical control, and concentration in the network of stakeholder relationships impact conflict within the project organization, conflict in the external environment, and ultimately the success of the project organization. This dissertation sets the foundation for a research agenda focused on building a more complete view of the project organization and its external relationships, and how conflict, trust, coordination and other processes affect its ability to be successful.

In the next sections, I provide an overview of the unique characteristics of the project organization, and further expand on interorganizational conflict. I discuss the theories examined and extended to formulate my research questions. I describe my empirical approach and dataset, and close with the novel contributions that this dissertation makes to the strategic management field.

THEORETICAL APPROACH

In this dissertation, I build a contingent theory of governance of the project organization. To better understand under what conditions differences in access to resources affect the organization, I extend diversity theory (Jehn & Mannix, 1989; Harrison & Klein, 2007; Stirling, 2007), which looks at group-level differences and how they impact group outcomes, such as conflict, and examine how the composition of the project organization affects conflict between
its members and between the project organization and external stakeholders. I build on transaction-cost theory (Williamson, 1975, 1985), and in particular how the plural governance of the project organization (Eccles, 1981) aligns or differs from the traditional transaction-cost view. Furthermore, I extend theory on interorganizational conflict (e.g., Lumineau, et al 2015), and support this theory with a novel measure of conflict that addresses the past challenges researchers have faced in empirically supporting theory on interorganizational conflict. Lastly, I build theory on the impact of interorganizational relationships on the external environment in which the project organization operates, and specifically explore how elite bias in the stakeholder network of the project organization drives conflict between stakeholder groups (Henisz, 2019).

*Interorganizational Relationships*

I examine interorganizational relationships—relationships between firms—that specifically involve relationships between multiple firms where there is a lack of an explicit hierarchy or formal governance in place (the “project organization”). I rely on two distinct research streams to better understand the dynamics of this organizational form. First, I build on past work exploring the multipartner alliance (Heidl, Steensma & Phelps 2014; Dorobantu, et al 2019). Multipartner alliance research extends traditional dyadic alliance theory to better understand how three or more partners come together as an alliance. Despite their challenges in coordination and complexity, multipartner alliances are a popular and growing organizational form, as firms look to combine diverse capabilities to innovate, enter new markets, and complete large-scale projects (Dussauge, Garrette, & Mitchell 2000). Second, I further examine this organizational form through research on the temporary project organization (Beckky, 2006), a group of organizational actors that come together to execute a project and then disband when the project is over (Bakker, 2010). Though long-examined in project management research (see
Sydow & Braun, 2017; Bakker, 2010 for reviews), the strategic management field has so far only limited research in this area (with notable exceptions of Bechky, 2006; Majchrzak, Jarvenpaa, & Hollingshead, 2007; Schwab & Miner, 2008; Bakker, 2016), especially in the context of the governance of these organizations as distinct from more traditional partnerships (Eccles, 1981).

Whether through the lens of the multipartner alliance or the temporary project organization, these organizational forms differ from a dyadic partnership, such as a JV in ways that are important to my research. These relationships are more difficult to govern than joint-ventures or other bilateral partnerships (Gulati, 1995; García-Canal, 1996). First, because the project organization involves relationships across multiple partners (frequently from different countries), the social exchange processes experienced by the members are inherently more complex. For example, firm A must build relationships and learn to operate with firm B, firm C, and firm D in the organization; firm B must build relationships with C, and D, and onward. Both direct and indirect reciprocity is required for the project organization to be successful, and a challenge or conflict faced between two members of the organization, jeopardizes the ability of the entire project organization to meet its goal (Heidl, Steensma & Phelps 2014). Complexity and conflict are rife, as the increase in number of partners complicates the formal exchanges processes that take place (Lavie, Lechner, & Singh, 2007).

Second, the project organization is brought together with a collective contract and goal; and as such, bilateral contracts between each dyadic relationship are rare, as is formal authority. Accordingly, the relationships within the project organization are often informal, temporal, and the overall alliance may lack an explicit hierarchy and codified collaboration mechanisms (Eccles, 1981). For example, venture capital syndicates are comprised of partners that work together in the service of financing and strategic support for an entrepreneurial venture: these partners do not each have contracts with each other, but rather with the venture (see Zhang, Gupta & Hallen, 2018). A banking syndicate that comes together to finance a project operates within
the same structure: each bank has an explicit contract with the borrower, but not with each other (see Dorobantu, Lindner & Müllner 2019). Thus, this organizational form relies more heavily on relational governance—trust and relational norms—than formal contracts to operate as a group and achieve the organization’s stated objectives (Gulati, Puranam & Tushman 2012, Das & Teng, 2002).

Next, in the context of the temporary project organization, the temporal nature of the organizational form further distinguishes it from other firm-firm relationships. Per its name, the temporary project organization differs from permanent organizational forms because of its ex-ante expectation of termination (Lundin & Söderholm, 1995). The organization is time-bound. As such, the ability of partners to have repeated interactions may be limited; and there may be greater likelihood for opportunism and an effect on cooperation given the terminality of the project (Swärd, 2016).

Lastly, the context of the project organization—how the project organization relates to the institutional, societal and environmental context in which it is embedded is a defining characteristic of this form (Engwall, 2003; Bakker, 2010). For many project organizations, including those in my empirical dataset, navigating the external context and building relationships with stakeholders is seen as critical to the project organization’s success, especially as the size and strategic importance of these projects often guarantee the close and contentious involvement of governments, local labor groups, and other key stakeholders (Ligthart, et al 2016; Henisz, 2003; Fligstein & McAdam, 2011).
Interorganizational Conflict

Conflict is a key mechanism in the performance of a relationship between organizations. It should be acknowledged that there are benefits of conflict - including the reduction of group-think and promotion of creativity (de Dreu & Weingart, 2003), but the more widely held and supported view is that conflict within an interorganizational relationship ultimately hurts performance (Li & Hambrick, 2005; Christoffersen, 2013; Reus & Rottig, 2009; Schilke & Lumineau 2018). Theory development and empirical research on interorganizational conflict’s impact on firm performance and what drives conflict between two organizations is extensive (see Lumineau, et al, 2015 for review) though significant empirical challenges, as discussed below, exist in fully testing theory on interorganizational conflict (Lumineau, et al 2015). Though there is a higher likelihood of conflict in project organizations given their size (Lavie, Lechner, & Singh, 2007), we have a very limited understanding of what drives conflict in the project organization (Davis, 2016), and limited empirical support for the theory that conflict harms performance in the project organization (Christofferson, 2014).

Thomas defines conflict as ‘the process which begins when one party perceives that another has frustrated, or is about to frustrate, some concern of his’ (1992: 265). Conflict, whether between individuals, within a team, or between organizations has an impact on the functioning of relationships, the ability to build and maintain trust, communication, creativity, efficiency, and social capital, and ultimately helps to explain performance differentials. In examining conflict, scholars have sought to understand the antecedents and drivers of conflict (Zaheer, McEvily & Perrone, 1998; Malhotra & Lumineau, 2011); what forms conflict takes, including productive and unproductive conflict types (Koza & Dant, 2007; Rose & Shoham, 2004); how conflict is managed once it occurs (Mohr & Spekman, 1994; Conlon & Sullivan, 1999; Lumineau & Henderson, 2012); and lastly, the outcomes that result because of conflict
Conflict at the interpersonal level—that is conflict between individuals or within a group—has been extensively researched. Conflict at the organizational level—that is conflict between organizations involved in a collaborative agreement or relationship—is far less understood, and research exploring conflict beyond dyadic relationships (e.g., supplier-buyer relationships or JV partners) is extremely limited (Lumineau, et al 2015).

It’s important to note how conflict amongst organizations (“interorganizational conflict”) differs from conflict between individuals (“interpersonal conflict”), and as such, why caution is taken in abstracting findings from the interpersonal to the interorganizational level. First, though conflict at both levels can be seeded by and impacts the individual, interorganizational conflict has greater-reaching consequences at the organizational-level (Lumineau, et al 2015). For example, an interpersonal conflict between two employees of an organization is contained within and can be resolved by the internal structure and hierarchy of the firm. Conflict between two organizations does not benefit from the same overarching and self-contained structure and hierarchy (Borys & Jemison, 1989). Second, interorganizational conflict may be longer and more complex in nature than interpersonal conflict, as the resolution of interorganizational conflict may involve multiple parties and decision-makers within each organization, individuals within the organization may leave or be replaced, and additional outside parties, especially in the case of contractual disputes, are more likely to be involved (Lumineau, et al 2011). Lastly, interorganizational conflict is more greatly influenced by both the formal and informal institutional environment than interpersonal conflict (Cao & Lumineau, 2015; Zhou and Poppo, 2010). For example, the strength of legal institutions in an environment, which impacts the enforceability of contracts, impacts how conflict is managed and resolved between organizations.

Interorganizational conflict results from breaches of trust, competition, poor communication, divergent goals or deviation from expected norms and roles. Thus, researchers
have explored what elements pertaining to an interorganizational relationship result in a breach of trust, or deviation from an expected norm, or impediment to clear communication, and ultimately result in conflict. One stream of research explores the impact of formal contracts on conflict and conflict resolution in interorganizational relationships. For example, scholars have found that the provisions within a contract – i.e., coordination versus control provisions – impact the level of conflict in an interorganizational relationship (Lumineau & Malhotra, 2011; Schilke & Lumineau, 2017; Klaus & Klerk 2017). And, even more broadly, the degree that firms rely on contractual governance in their interactions impacts inter-organizational conflict and whether disputes will arise (Gundlach & Achrol, 1993).

Another stream of research explores how other characteristics beyond formal contracts and governance structures impact conflict between organizations. Characteristics such as switching difficulty and alternatives in the market (Gray & Handley 2011; Cannon and Perreault, 1999), the allocation of resources between partners (Lumineau & Malhotra 2011), common or divergent norms of behavior (Ganesan, 2010) and the level of interdependence and coordination (Assael 1969, Alter 1990) all have been shown to impact the level of conflict between organizations. For example, Steensma and Lyles (2000) in their study of international joint ventures found that an imbalance of informal decision-making power of one parent over another (as observed through management teams and systems) resulted in greater conflict between the two IJV parents, as measured by greater mistrust, conflicting goals, and general conflict over the initial agreement. In project organizations, conflict is a key mechanism, especially as firms come together to achieve a common goal, but may have vastly distinct organizational goals (Eccles, 1981). In much of the research exploring diversity of culture, technological capabilities, nationality or function organizations, the ability of the project organization to cooperate and build trust, thus limiting conflict, is critical to performance success and stability. For example, Lavie & Miller (2008) in their exploration of alliances in the software industry theorized that high levels
of national differences between members within an alliance result in higher transaction and coordination costs, specifically conflict, mistrust, and ineffective interactions. Thus, those alliances with high levels of national differences ultimately experienced worse performance. Mahalingham, Levitt, & Orr (2005) through qualitative case studies, show that team building and cultural activities within a project organization reduces conflict and, in turn, improves project performance. Lastly, Heidl, Steensma & Phelps (2014) explored how different configurations of the project organization could allow members of the project organization to act as “peace-makers,” coordinating the divergent behaviors of the other members of the organization.

Yet, research on interorganizational conflict is limited in its understanding of the types of conflict experienced by the organization, and how these conflict types are related to each other and to performance. Past conflict on interorganizational conflict tends to classify it as functional or dysfunctional (Koza & Dant, 2007) or latent and manifest (Frazier & Rody, 1991), but we lack a deeper understanding of the different forms of conflict experienced by the project organization. However, conflict between individuals within a group is a long-studied phenomenon, and many factors—interpersonal incompatibilities amongst group members, functional or experiential differences, power structures, subgroup composition, among many other factors – drive conflict within the group. Conflict within a group is typically classified in three categories – relationship, task, and process conflict—though, in actual group functioning, conflict types overlap, impact each other, and are dynamic (Jehn, 1995). The impact of conflict within a group is equivocal, though received wisdom agrees that relationship conflict, driven by differences in attitudes, beliefs, and opinions amongst team members hurts group cohesion and social integration (e.g., Harrison et al 1998), creates distrust (e.g., Klein & Harrison 2007) and reduces attraction and feelings of liking between group members, ultimately hurting group performance (Tsui et al 1992). Task conflict, the conflict that arises when members have differing approaches to work product or ideas, is often productive and may promote creativity and other positive outcomes
(Pelled, Eisenhardt, & Xin, 1999), but some argue that these positive benefits of task conflict are present only in constrained and highly specific situations (de Dreu, 2008). Process conflict, conflict resulting from decisions about how work is allocated or gets done, has also been shown to induce negative team outcomes, especially if this type of conflict is not resolved early within a group’s life. Even more vexing is the interplay between each type of conflict: process conflict may result in relationship conflict if not resolved quickly, and at times, task conflict can be detrimental to team performance if existing levels of relationship conflict are present on the team (Jehn & Mannix 1999; Greer, Jehn & Mannix 2008). Thus, conflict types are connected and correlated (de Dreu & Weingart, 2003; Simons & Peterson, 2000).

In the project organization, conflict is theorized as a key mechanism in the relationship between characteristics and performance, especially as firms come together to achieve a common goal, but may have vastly distinct organizational goals (Eccles, 1981). The widely-held view is that conflict harms the performance of the project organization (Christoffersen, 2013; Reus & Rottig, 2009), yet, there is limited research (with notable exceptions) on the objective consequences of conflict on the project organization, and much of this research does not show a significant impact of conflict on performance (Lumineau, Eckerd & Handley, 2015; Koza & Dant, 2007; Demirbag & Mirza, 2000). Conflict hurts performance in the project organization in two important ways: conflict reduces trust and increases costs to the organization. First, conflict reduces trust amongst partners, which in turns harms performance. Conflict harms trust between organizations (Kim et al., 2004, 2006; Tomlinson et al., 2004), and trust has long been shown to be an important component for governing interorganizational relationships (Ring and Van de Ven 1992; Gulati 1995; Gulati and Gargiulo 1999), especially in the project organization where there is a greater need for social governance mechanisms (Gulati, Puranam & Tushman 2012, Heidl & Phelps, 2011, Das & Teng, 2002). Trust increases communication and information sharing, and improves overall efficiency and coordination of activities (Ring & Van de Ven, 1994; Uzzi,
1997). As such in the project organization specifically, trust is a critical input to performance (Krishnan et al. 2006; Nielsen 2007; Luo & Park 2004). Second, conflict comes at a cost to the project organization. Resolution of conflict requires time and resources from the partners that could have been dedicated elsewhere had no conflict arisen (Zaheer, McEvily and Perrone 1998; Steensma & Lyles, 2000). For example, conflict from external parties has also been shown to be costly to a firm: reduction in conflict with external stakeholders increases the financial value of a firm (Henisz, Dorobantu & Narcey, 2014).

Though there is a significant theoretical foundation for the drivers and impact of interorganizational conflict, the primary challenge in supporting theory, in particular theory on conflict between members of the project organization, is the difficulty in observing and measuring conflict. Past research on interorganizational conflict focuses on four primary methods for studying this mechanism: archival research using legal contracts and legal disputes between two partners (Malhotra & Lumineau, 2011; Conlon & Sullivan, 1999); surveys of managers’ past perceptions of conflict that they observed or experienced (Habib, 1987, Kim, Hibbard & Swain, 2011); other qualitative methods such as field interviews and observational case studies (Pruden, 1969; Sebring, 1977), and laboratory experiments (Tangpong, Hung & Ro, 2010). Thus, empirical measures of conflict that do not rise to the level of legal disputes or arbitration, or do not rely on perception are rare. This dissertation provides a significant empirical contribution to the study of interorganizational conflict by using a measure of conflict derived from the natural language processing of text written about project organizations, at a scale (2138 organizations comprised of 45,000 unique partners) not previously studied. I provide an overview of this empirical measure in the next section of this dissertation.
Diversity Theory

There is a significant body of work exploring how differences amongst firms in project organizations (e.g., differences in industry, function, national background) reduce trust, increase coordination costs, and inhibit the ease at which partners can communicate and share knowledge (Gulati, 1995; Parkhe, 1991; Lavie & Miller, 2008; Goerzen & Beamish, 2005) and how these differences impact outcomes, including formation, innovation, financial return to partners, and dissolution (Wuyts & Dutta, 2014; Jiang, Tao & Santoro, 2010). Though, past scholarship has primarily focused on the differences between a focal firm and its partners, especially in alliance portfolios (e.g., Lavie & Miller, 2008), recent scholars such as Dorobantu, et al (2019), Bertrand & Lumineau (2016), and Mohr, Wang & Goerzen (2016), have begun to extend the long and rich research on diversity in groups from the organizational behavior field to examine group-level differences in the project organization and gain a better understanding of how the composition of the project organization impacts outcomes.

As recently explored by Bertrand & Lumineau (2016) and Mohr, et al (2016) at the organizational-level, and long explored by scholars in the organizational behavior field, the study of diversity explores the nature of differences within a group, and different types of diversity have substantive distinctions (Harrison & Klein, 2007). Diversity, unlike an examination of differences or distance between firms, examines both the nature of differences as well as the pattern of these differences (Mohr, Goerzen & Wang, 2015). Diversity comes in three types (Harrison & Klein, 2007; Stirling, 2007). “Variety” diversity is differences in kind or type, and implies distinct information or knowledge (Harrison & Klein, 2007). For example, project organizations characterized by a set of partners from a variety of functional roles (e.g., marketing, manufacturing) exhibit greater knowledge sharing and higher performance (Jiang, et al 2010; Lee, 2014).

3 See Lee, Kirkpatrick-Husk, and Madhavan (2014) for a meta-analysis of diversity and performance.
et al 2017). Variety diversity may generate more productive, task conflict and greater creativity (Klein & Harrison, 2007). The distribution of differences along a continuum of values and beliefs by members of a group is “separation” diversity (Harrison & Klein 2007) or “balance” diversity (Stirling, 2007; Mohr, Goerzen & Beamish 2016). In general, this type of diversity increases the coordination costs of a group, as these differences can harm trust, make information sharing more difficult and induce harmful relationship conflict. Past work has shown that partnerships with high separation diversity experience worse performance, including greater likelihood of dissolution (Mohr, Goerzen & Beamish 2016). Lastly, “disparity” diversity is the differences in resources, whether those resources are pay, status, prestige, wealth or other sources of power (Harrison & Klein, 2007). In general, disparity (whether in power, pay, prestige, or status) across members of a team can diminish trust and cooperation, and induce conflict (e.g., Bourgeois & Eisenhardt 1988; Bloom 1999), though benefits of disparity diversity—including structure and efficiency—also exist (Tiedens & Fragale, 2003).

A central argument of diversity in the project organization is that diversity helps organizations access new knowledge sources and gain complementary capabilities from their partners (Baum, Calabrese, & Silverman, 2000; Dutta & Weiss, 1997), but that diversity makes communication and coordination more difficult, as firms have to navigate these differences and it is costly to do so (Goerzen & Beamish, 2005; Koka & Prescott, 2008). As such, diversity is a double-edged sword (Dorobantu, et al, 2019; Beamish, 2010), and scholars acknowledge that diversity types can have both positive and negative effects (Bertrand & Lumineau, 2016). Given the benefits and challenges of diversity, scholars have called for a contingent approach to understanding diversity as under certain conditions, an organization may benefit from diversity whereas another might not (Wuyts & Dutta, 2012). Yet, despite this acknowledgement that each diversity type may have at times, an opposite effect on the project organization, there exists a gap in understanding the mechanisms underpinning the diversity-performance link. Diversity theory
at the group level has long-explored the effects of diversity type on conflict-type: one type of
diversity may induce positive, productive conflict, whereas another may induce harmful conflict
(Jehn & Mannix, 2001; Pelled, Eisendhart & Xin 1999). However, this research has not been
extended to conflict at the organizational level. The effect of diversity type on conflict can help
us to better understand the mechanisms behind why some diversity types harm the performance
of the project organization, and why others help, and more importantly, how these organizations
can mitigate the negative effects of diversity, while allowing for the positive attributes.

Though there is a significant theoretical and empirical foundation for the effect of
diversity on conflict in the organizational behavior field, there is a limited understanding of the
effect of diversity on conflict in the project organization. Past research on diversity in the project
organization has primarily focused on diversity at the level of a focal firm. For example, scholars
have examined how diverse a single firm’s alliance portfolio is (from the perspective of the firm)
(Baum, Calabrese, & Silverman, 2000; Dutta & Weiss, 1997; Lee, Lee, & Pennings, 2001;
Powell, Koput, & Smith-Doerr, 1996), as opposed to a group-level measure of diversity. As
such, the outcome of diversity is also a firm-level measure (e.g., focal firm profitability or
innovation), as opposed to a group-level (e.g., overall conflict experienced by all members of the
project organization). Limited, but recent work has looked at group-level measures of diversity
(e.g., Bertrand & Lumineau, 2016; Dorobantu, et al 2020; Mohr, et al, 2016; Lumineau, Hanisch
& Wurtz, 2021), but does not focus on conflict as an outcome. Furthermore, past work has not
examined diversity jointly (Bertrand & Lumineau, 2016; Mohr, et al, 2016), that is, the effect of
diversity type on each other and on the functioning of the project organization. The faultlines
literature (Lau & Murnighan, 1998), and recent work on the project organization (Dorobantu, et
al 2019), argue that multiple diversity types compound the effects experienced by a group.
However, given that each diversity type may have an opposite effect depending on certain
conditions (Bertrand & Lumineau, 2016), the joint effects of diversity type on conflict may not be
straightforward. For example, disparity—differences in the concentration of resources—can bring about structure and efficiency to a group (Heidl, et al 2014; Lumineau & Maholtra, 2015), but can also incite competition and conflict (Sidanius & Pratto, 2004; Galinsky, et al 2006). This dissertation provides both a theoretical and empirical contribution to the study of diversity in the project organization by examining how diversity type affects conflict, a key mechanism in the functioning of the project organization, and by examining diversity types jointly, to better understand how diversity types interact with each other in the project organization.

*Governance and Uncertainty*

The classic view in organizing is that firms utilize either hierarchy or the market to allocate and control resources. (Arrow 1974, Coase 1937; Williamson 1975, 1985). As transaction cost theory highlights, in seeking to minimize costs while minimizing the risks of a transaction (e.g., risk of opportunism or partner hold-up), an organization may choose to operate as a hierarchy (e.g., vertically integrate) or use a market-based, arm-length’s relationship to transact (Williamson, 1975). In the transaction cost view, asset specificity, transaction frequency, and uncertainty are the three primary attributes on which an organization bases this choice of governance (Lawrence & Lorsch, 1967; Gulati & Singh, 1998; Sutcliffe & Zaheer, 1998). Mechanisms along the hierarchy – market continuum (e.g., licensing, joint-ventures) allow firms to navigate contexts where a pure hierarchy or pure market is not sufficient; and scholars have long-held the view that the market-hierarchy choice is not black or white, as certain markets may contain hierarchical elements and vice versa—hierarchical structures may contain market-like mechanisms when allocating resources (Corey 1976, 1978; Eccles 1981; Jackson 1985; Macaulay 1963; Stinchcombe & Heimer 1985; Hennart 1977, 1982). Further shades of grey occur when some market-based transactions within a firm are preferable to its internal
hierarchy, as transfer prices within divisions of a firm may generate more conflict and more transaction costs than a market-based transaction (Eccles & White 1981).

Uncertainty is “the fundamental problem for complex organizations” (Thompson, 1967), and as long-explored, uncertainty drives choice of governance as organizations seek to reduce opportunism and reduce the risk that comes from unknown environments, partners, technologies and markets (Williamson, 1975). Though long understood to be important to governance choice, the empirical support for the alignment of uncertainty and governance choice is ambiguous (Mahoney, 1992; Krishnan, Geyskens & Steenkamp, 2016; David & Han, 2004), and even less understood is the impact of governance choice and uncertainty on the performance of the project organization (Cuypers, et al 2021). Environmental uncertainty—the challenges in predicting external changes in the environment (Williamson, 1985)—requires an organization to gather and absorb new information, as well as be flexible, in order to adapt to its changing environment. Scholars have both argued that the relationship between governance choice and environmental uncertainty is dependent on asset specificity (e.g. Leiblien, 2003, Cuypers & Martin, 2007), and that environmental uncertainty has a direct effect on governance choice, though this direct effect is mixed and inconclusive (Bergh & Lawless, 1998; Cuypers & Martin, 2007; Krishnan, Geyskens & Steenkamp, 2016; Cuypers & Ertug, 2021). For example, contractual governance helps under conditions of moderate to high levels of environmental uncertainty, as it allows for flexibility in adapting (Krishnan, et al 2016), yet other research shows that performance advantages occur when firms use hierarchy under conditions of high environmental uncertainty, as it allows for greater efficiency and speed in decision-making (Forbes & Lederman, 2010). Behavioral uncertainty—the challenges in predicting the actions of relevant partners (Williamson, 1985) has a similarly inconclusive effect on governance choice. For example, in a meta-analysis, Krishnan, et al (2016) find that contractual governance is helpful at moderate levels of behavioral uncertainty, whereas Santoro & McGill (2005) find that behavioral uncertainty increases the
likelihood of hierarchical governance, as it allows for closer monitoring and coordination of unknown partners. Casciaro (2003) finds that behavioral uncertainty is not straightforward in predicting governance choice, but rather is dependent on the type of task undertaken by the alliance. This lack of conclusiveness has heeded the call to identify specific sources of uncertainty for a better understanding of its effect on governance choice (Weber & Mayer, 2014).

The effect of uncertainty on governance choice in the project organization remains a theoretical puzzle. The project organization has its own type of governance absent a unitary corporate actor (Eccles, 1981). Project organizations, as a “second order” organizational form (Borys & Jemison, 1989) have plural governance: these forms rely on hierarchical control and coordination, market-based interactions, and additional elements such as social capital, relational governance, and other trust-based mechanisms to collaborate, and ultimately be successful (Eccles, 1981; Bechky, 2006; Sydow & Braun, 2018). Project organizations lack formal authority, but often exhibit significant informal authority based on partners’ control over key resources, technologies or status (Gulati, Puranam & Tushman, 2012). As such, transaction-cost theory does not fully explain the governance of the project organization (Eccles, 1981; Bakker, DeFillippi, Schwab & Sydow, 2016), though the transaction-cost lens is frequently called upon to be more fully used to explain the governance of the project organization (Sydow & Braun, 2017). And, despite uncertainty being prevalent and important in complex organizations (Thompson, 1967), and significant work examining types of uncertainty and how to manage uncertainty in the project organization (see Jones & Lichtenstein, 2008; Sanderson, 2012), there is a limited understanding of how the alignment of governance and uncertainty affect performance in the project organization (Cuypers, et al 2021).

This dissertation heeds the call to better understand the formal-informal organization from a transaction-cost perspective (Cuypers, et al, 2021), and to understand how a central actor and informal authority within a project organization shapes the organization’s actions (Gulati, et
al, 2012). To do so, this dissertation examines the conditional effects of each type of uncertainty, how governance choice may help to mitigate that uncertainty, and the implications on the overall performance of the project organization.

The External Environment of the Project Organization

Lastly, this dissertation builds on theory that examines the concentration of relationships in the network of stakeholder relationships (Henisz, 2019) to understand how and when the project organization impacts the external environment in which it operates. The project organization is “inextricably interwoven” with its external environment (Grabher, 2004: 1942), and past work has shown the challenges that the external environment may pose to the successful operation of the project organization (Dollar & Levin, 2005; McAdam et al., 2011; Levitt, Scott & Orr, 2011). Furthermore, past work has explored how the relationships firms form with external stakeholders impact the conflict directed at the firm and the strategies firms use in order to mitigate the conflict by these external parties (Dorobantu, Henisz & Nartey, 2017). As such, project organizations that engage with and involve a broader set of stakeholders in their operations experience less conflict directed toward their projects (Henisz, 2019), and as a result experience superior financial returns (Henisz, et al 2014) especially in the aftermath of critical events (Dorobantu, Henisz & Nartey, 2017). Specifically, when the network of relationships in the stakeholder network is concentrated—that is, it lacks inclusiveness and participation across a broad range of stakeholders—stakeholders may perceive that one group or faction has disproportionately benefited or been harmed by the project in the form of profits, jobs, status or externalities and challenge the legitimacy of such behavior. This sense of relative economic deprivation may trigger mobilization and (violent) conflict directed at the project (Gurr, 1970; Henisz, 2019).
Yet, the lack of inclusiveness in the network of relationships that comprise the project organization—which we call *elite bias*—may also drive *overall* conflict in the environment in which the project operates (Ganson, He & Henisz, 2021). As long explored by economists, sociologists, and management scholars, systemic conflict can result from inequality between groups (Humphreys, 2003; Stewart, 2000; Blau, 1964). Firm strategies in their relationships with direct stakeholders may impact the structure of the relationships between these stakeholders and other political and social groups (Ganson, et al 2021). And, as a result of this set of systemic interdependencies, these project organizations in their distribution of resources can worsen existing inequities between groups, especially in conflict-prone environments, and thus drive overall conflict in the system (Ganson, et al 2021). For example, Amengual (2018) explores the choice between inclusive or targeted distribution of benefits from mining operations in order to avoid conflict. Similarly, Kemp, et al (2011) highlights asymmetries of power as a driver of conflict, and participation as a mechanism to mitigate it; and, Gross (2007) emphasizes the importance of the perception of fairness and community participation in the acceptance of energy projects. An inclusive and equitable governance structure is linked to positive socio-economic outcomes (Berdegué, Escobal & Bebbington; 2015).

Past research has argued that development projects support peace-building and reduce conflict, as development projects increase economic prosperity which increases the opportunity cost of conflict (Ball & Halevy 1996; Kreimer et al. 1998; Fearon, Humphreys & Weinstein, 2009); whereas others argue that development project increase conflict, as groups fight for the increased resources brought about by these projects (Dube & Vargas, 2013; Berdegué, Escobal & Bebbington, 2015; Amengual, 2018). This dissertation builds on the theory that elite bias increases conflict between political, economic, and social stakeholders to understand under what conditions development projects may exacerbate conflict in the environment in which they operate. Past work that has sought to answer the development project – conflict question has
mainly focused on country-level conflict, or single country case-studies. Furthermore, past work has only limitedly taken into account the effect of firms on development projects and development outcomes. As described in the following section, this dissertation provides a significant empirical contribution to the study of development projects and conflict by using third-party analysis of media reports within 50km of the projects, as well as examining the composition of these development projects as a core component in the development—conflict relationship. I provide an overview of this empirical measure in the next section of this dissertation.

EMPIRICAL APPROACH

Though there is a line of robust empirical work examining forms of the project organization, these studies often lack heterogeneity: studies typically may focus on project organizations in one industry (Dorobantu, et al, 2019), in a limited geography (Mohr, Wang & Goerzen, 2016), or comprised of only three partners (Li, Eden & Josefy, 2017). Moreover, rich qualitative work on the processes and mechanisms that govern the relationships between members of the project organization exists (Davis, 2016; Bechky, 2006), yet similarly extensive quantitative research examining these processes are limited, as observable outcomes tend to be limited to formation, performance, longevity, and dissolution. Furthermore, theory has outpaced empirical work in the study of interorganizational conflict, and in particular conflict involving the project organization (Lumineau, et al 2015). This is not surprising given the empirical challenges in studying conflict, as outlined above, and the lack of an archival database that scholars could access. Lastly, empirical work examining conflict surrounding a project is limited by the challenge in measuring conflict at a sub-national level: country level measures of violence, conflict, and strife have not allowed researchers to develop and examine causal links between projects and the conflict in their immediate vicinity.
In my empirical approach, I attempt to overcome these empirical challenges in multiple ways. To test the theories set out in this dissertation, I create a unique dataset of project organization that execute on global projects that are partially funded by the World Bank from 1998-2019. This dataset is comprised of archival World Bank project data, World Bank contractor data (those firms and organizations executing the projects), World Bank project outcome data, third-party datasets on country-level characteristics (e.g., economic indicators, institutional indicators), World Bank project documents, and the media corpus reporting on these projects. The dataset consists of approximately 3,000 project organizations operating in 135 countries executed by approximately 100,000 firms and organizations. These project organizations span eleven industries and operate across 135 host countries that are eligible for World Bank assistance. They are comprised of between two and 299 organizations. To my knowledge, the variance of industry, geography, and size of the project organizations in my research setting is unmatched in previous work on the project organization.

To test theory on conflict between members of the project organization and between the project organization and external stakeholders, I build a unique measure of the level of conflict experienced by the project organization. Using over 340,000 pages of project documents, I use a natural language processing tool that codes instances of conflict experienced between members of the alliance or between the alliance and external stakeholders across each project. The tool I use additionally deploys machine-learning to remove biases and false positives from the search and generate additional elements of conflict that hand-coding or using a traditional “bag of words” approach may have missed (see King, Lam, & Roberts, 2017). Thus, I am able to address past challenges of measuring conflict by capturing conflict that does not rise to the level of legal disputes and does not rely on surveys or qualitative work. To my knowledge, this measure of

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4 See: https://thresher.io/
conflict between firms and between stakeholders has not been replicated in prior work.

Lastly, my co-author and I develop a unique dataset to determine if projects drive conflict in the areas in which they are located. We supplement the World Bank dataset and project documents as constructed above with third-party analysis of media reports within 50km of the projects provided by the Global Database on Environment, Language and Tone (GDELT). GDELT data are based on both international and translated local news sources coded using the textual analysis by augmented replacement instructions system (Leetaru & Schrodt, 2013). From this database, we extract information on the average reported degree of overall, verbal and material conflict and cooperation as well as the shifting pattern of relationships among stakeholders over the life of the project.

**CONTRIBUTIONS TO EXISTING WORK**

Despite the prevalence and importance of the project organization as an organizational form, we lack an understanding of how the informal governance of these relationships, as well as their composition, impact the ability of the project organization to avoid harmful conflict and build trust (Davis, 2016; Cuypers, et al, 2021). This dissertation develops a contingent theory of the governance of the project organization and provides a more comprehensive picture of how the project organization navigates the relationships amongst its members and navigates the external environment in which it operates. In particular, this dissertation contributes to four distinct research streams.

First, this dissertation contributes theoretically and empirically to the research field of

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interorganizational conflict (Lumineau & Henderson, 2012; Janowicz-Panjaitan, & Krishnan, 2009; Heine & Kerk, 2017; Eckerd & Eckerd, 2017; Malhotra & Lumineau, 2011; Lumineau & Malhotra, 2011; Christofferson, 2013). Despite the importance of conflict to trust-building, cohesion, communication and coordination in the project organization, past academic research has devoted limited attention to examining conflict between multiple partners in a project organization, partially as a result of the empirical challenges in measuring conflict (Lumineau, et al 2015). I extend the exploration of conflict from bilateral conflict to multiple partner conflict and examine how group level composition affects the conflict experienced by the project organization. Through the construction of a unique measure of conflict developed through the natural language processing of 340,000 pages of project documents over 2147 project organizations, this dissertation builds on the work of management scholars such as Heidl, et al (2016) that examines conflict between partners in a project organization, what drives that conflict and how it can be reduced. This dissertation also adds both theoretical and empirical evidence to the conflict – performance link in the project organization, a relationship theorized, but not empirically proven (Christofferson, 2013). Aligned with diversity theory (Jehn & Mannix, 1998), I posit that not all conflict that the project organization experiences is bad. To the field of research on conflict resolution and conflict management between firms (Pondy, 1967; Janowicz-Panjaitan & Krishnan, 2009; Koza & Dant, 2007; Lumineau &. Henderson, 2012), I provide additional evidence that factors such as participatory decision-making and community-voice can mitigate the negative effects of conflict on the project organization’s performance.

Second, this dissertation contributes to the field of scholarship on the temporary project organization, an organizational form common in practice (Bakker, 2010), but not extensively explored in the management literature. Despite being highlighted by Eccles (1981) as a unique organizational form with distinct governance and additional challenges given its complexity (Lavie, Lechner, & Singh, 2007), the temporary project organization lacks unifying theory and
suffers from limited quantitative methods to support theory. Work by management scholars such as Bakker (2010, 2016), Bechky, (2006), Oliveira and Lumineau (2017), Scott, Levitt and Orr (2011), Jones and Lichtenstein (2008), and Majchrzak, Jarvenpaa and Hollingshead (2007) intersects with an extensive body of work on the temporary project organization in the project management and construction fields (e.g., Sydow & Braun, 2017; Maurer, 2010; Sanderson, 2012; Van Marrewijk, et al, 2016). This dissertation attempts to investigate the project organization through two management theories—diversity theory and transaction cost theory—to contribute to our understanding of the temporary project organization, and to support theory-building through a quantitative dataset of a scale not previously examined in project organization research. In doing so, this dissertation also contributes to the work of scholars such as Bertrand & Lumineau (2017), Dorobantu, et al (2019), Zhang, et al (2017), Heidl, et al (2014), and Mohr, et al (2016) that examines the project organization as the level of analysis, as opposed to examining the behavior, relationships or performance of a focal actor in an alliance or network; and answers the recent call for a contingent approach to the study of this organizational form (Wassmer, 2010; Wuyts & Dutta, 2014).

The last chapter of this dissertation contributes to the limited field of management research on the impact of business on conflict in the environment in which it operates (Henisz, 2019). Building on work of scholars such as Ganson, He & Henisz (2021), Henisz, Dorobantu & Narrey (2014), Oetzel (2010), and Forrer & Katsos (2015), this dissertation attempts to establish the link between project organization composition with conflict in the external environment in which it operates. In doing so, this dissertation provides further evidence for contest (rapacity) theory, which posits that development projects exacerbate conflict in the environments in which they operate (Grossman, 1992), and explores how and why firm-level conditions may impact the project—conflict relationship. Through our research context of over 700 development projects, we also provide empirical evidence to further support the findings of scholars such as Fearon, et

Lastly, given its empirical setting, this dissertation contributes uniquely to the extensive body of work in the international development and development economics fields examining the drivers of performance in World Bank-funded projects (Kilby, 2000, 2011, 2015; Dollar & Levin, 2005; Limodio, 2011; Denizer, Kaufmann & Kraay, 2011; Bulman, Kolkma & Kraay, 2017). Despite vast literature exploring how project and country-level variables impact the success of these projects, limited research explores the impact firm characteristics have on project outcomes. Despite the clear link between business and development aid (Kolk, et al, 2008), only a small number of studies have begun to examine how firm characteristics impact these large projects: McLean (2017) examines firm procurement processes and firm political ties on World Bank projects; Malik & Stone (2018) examine if a project contractor is a Fortune 500 company. By examining how firms affect the success of development projects, this dissertation provides another lens from which the Bank can evaluate and implement policies and practices that ensure development outcomes are achieved. Given the vast resources devoted to development aid, my hope is that this dissertation can impact efficient, thoughtful practices both for more prudent use of tax-payer funds, and more importantly, for greater impact on the economic, social, and environmental security of society’s most vulnerable.

The rest of this dissertation is organized as follows: Chapter 1, The Good Fight, examines diversity and its impact on conflict; Chapter 2, Being Both, examines governance choice, uncertainty and performance, and Chapter 3, Developing Conflict, examines elite bias in the relationships of the stakeholder network of the project organization. I close with areas of discussion and future avenues of research on this topic.
CHAPTER 1: THE GOOD FIGHT: CONFLICT AND THE MULTIPARTNER ALLIANCE

Conflict harms the functioning of the multipartner alliance. Conflict harms trust between partners, impedes communication, and is costly and time-consuming to resolve. Though benefits of conflict can accrue (De Dreu & Weingart, 2003), the widely assumed view is that conflict in the multipartner alliance is to be avoided (Christoffersen, 2013). Yet conflict amongst members of the multipartner alliance, and between the alliance and external stakeholders is an understudied field (Lumineau, Eckerd & Handley, 2015); and a nuanced understanding of what drives conflict and when that conflict is indeed harmful to performance is lacking. In the organizational behavior literature, it is well-established that there are different types of diversity in a group, and each diversity type can impact group outcomes, specifically conflict, differently (Jehn, 1995; Pelled, Eisenhardt & Xin 1999). Recent work has applied diversity theory at the firm-level and examined how the three diversity types impact outcomes of interorganizational relationships (Bertrand & Lumineau, 2016; Mohr, Goerzen & Beamish 2016). I extend this past work to theorize that the relationship between each diversity type and conflict is not straightforward: I explore how each of the three diversity types—variety of functional roles, separation in institutional values, and financial disparity—drives conflict and then examine when diversity may in fact reduce conflict under certain conditions. Prior theory on diversity type in interorganizational relationships has overlooked the joint effects of diversity: in many cases, diversity drives conflict, yet, diversity may reduce conflict depending on the other types of diversity present. In this research, I provide further evidence that the same type of diversity can be both beneficial and detrimental to outcomes, in particular, conflict, (Bertrand & Lumineau, 2016) and offer a deeper understanding into how organizations may mitigate conflict once it does occur.
The multipartner alliance is a group of organizations that comes together and is “not bound by authority based on employment relationships but characterized by a system-level goal” (Gulati, Puranam, & Tushman, 2012:573). Multipartner alliances are a popular and growing organizational form, as firms look to combine diverse capabilities to innovate, enter new markets, and complete large-scale projects (Dorobantu, et al, 2019; Heidl, et al 2014). More so than dyadic alliances, multipartner alliances rely heavily on informal governance mechanisms and trust to be successful, as there is often an absence of contracts between partners, no formal hierarchy, and the alliance may be time-bound (Eccles, 1981). The complexity and number of partners involved in these alliances increase the likelihood of conflict (Das & Teng, 2000; Park & Russo 1996, Lavie, Lechner, & Singh, 2007). In turn, conflict experienced by the multipartner alliance can harm the relational capital necessary for success, as conflict between partners impedes communication and erodes trust (Christoffersen, 2013); and conflict between the alliance and external stakeholders can slow or stop a project, incite violence, and significantly increase the costs of operations (Mahalingam & Scott 2011; Henisz, Dorobantu & Narley, 2014).

Though its long been shown that some types of conflict are “good” (Jehn & Mannix, 1996), the general consensus is that conflict in the multipartner alliance harms alliance performance (Christoffersen, 2013). Despite its importance to the functioning of the alliance, conflict experienced by the multipartner alliance is an understudied field, partially as a result of the empirical challenges in studying interorganizational conflict (Lumineau, Eckerd & Handley, 2015). Though researchers have begun to develop a deeper understanding of conflict between

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6 Past interorganizational conflict research has focused on survey research or archival data. Survey data on conflict relies on managers’ past perceptions and behaviors related to conflict (Lumineau, et al 2015). Archival data (e.g., legal disputes between two partners coded through legal proceedings) provide a less biased picture of conflict between two firms; but fail to capture conflict, disputes, or disagreements that do not rise to the level of legal action or that involve more than two organizations. Work examining conflict
organizations and external stakeholders, especially in large, global infrastructure projects (Henisz, Levitt & Scott 2011; Dorobantu, Henisz & Naray 2017); little research has moved beyond dyadic conflict to conflict between members of the multipartner alliance (with the notable exceptions of Heidl, Steensma & Phelps, 2014 and Garcia-Canal, Valdés-Llaneza & Ariño 2004). Conflict drives more conflict, and in particular, conflict can reduce cooperative-framing to relationships in the alliance and increase the incentives for opportunism and more self-serving behaviors (Cao & Lumineau 2015; Dwyer & Walker 1981). Thus, the effects of conflict between two members of the alliance can spill over not only to other members of the alliance, but also to the other relationships that the members of the alliance have. Therefore, this study builds on past work to examine conflict between members of the alliance and between the alliance and other stakeholders (e.g., local labor groups, community members, investors, multilaterals). Given the overlap between stakeholders and partners of the alliance, examining only partner conflict misses the overall conflict experienced by the alliance, or misses conflict that does not neatly fall into either category. For example, from this study’s research setting, a multipartner alliance executing an innovation project in Romania experienced conflict between the government and the main Romanian contractor over project cost. A Moroccan infrastructure project experienced conflict between the multipartner alliance and the local population because development plans were not discussed or shared with the local stakeholders. A coastal restoration project in Tunisia saw conflict between two international partners of the alliance.

Conflict is messy and often builds on itself. Because the multipartner alliance involves complex relationships, and conflict between two members of the alliance can impact conflict between external parties and organizations has begun to utilize media coding (e.g., Henisz, et al 2014), but may miss the disputes or disagreements that occur between partners on a project.

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7 P058284: Cultural Heritage Project (Learning and Innovation Loan)
8 P056978: Irrigation Based Community Development Program
9 P069460: Gulf of Gabes Marine and Coastal Resources Protection Project
between other members of the alliance (Greer, Jehn & Mannix, 2008; Park & Russo, 1996), conflict is a collective behavior of the alliance. Therefore, it is important to examine the composition of the multipartner alliance as a whole to understand the overall level of conflict experienced by the multipartner alliance. There is a long and rich line of research in the micro-organizational behavior field that examines conflict in relation to group-level diversity (Jehn & Mannix, 1998), and there is recent work examining diversity types in interorganizational relationships (notably Bertrand & Lumineau’s (2016) examination of diversity type in cartel longevity). Drawing on both these research streams, I examine how the diversity of the multipartner alliance—that is, a group-level measure of differences amongst the partners—impacts conflict. Diversity is a tradeoff for the alliance: Alliances need unique and complementary capabilities from their diverse partners, but diversity affects the ability of the alliance to build trust, coordinate activities, share knowledge, and communicate (Gulati, 1995; Parkhe, 1991; Goerzen & Beamish, 2005); and subsequently diversity impacts alliance outcomes, including formation, innovation, financial return to partners, and dissolution of the multipartner alliance (Wuyts & Dutta, 2014; Jiang, Tao & Santoro, 2010; Zhang, Gupta & Hallen, 2017). Drawing on Harrison & Klein’s (2007) typography of diversity, I explore how three types of diversity—variety of functional roles, separation in institutional values, and financial disparity—impact the level of conflict experienced by the multipartner alliance, and examine how this conflict can be lessened.

I hypothesize that the variety of functional roles of the partners of the multipartner alliance increases overall conflict experienced by the alliance. Partners with differences in functional roles combine unique and complementary resources to enter new markets and build new products (Jiang, Tao, & Santoro 2010). Functional diversity has long been shown to benefit

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10 See Lee, Kirkpatrick-Husk & Madhavan 2017 for an extensive review of diversity in the multipartner alliance.
group outcomes, including longevity of relationships, creativity, and performance (Goerzen & Beamish, 2005; Bruyaka & Durand, 2012; Bertrand, et al 2016). Yet, diversity of functional roles does pose challenges for multipartner alliances. Coordination costs exist as alliance members seek knowledge from partners that are different from them and may have different operating norms and technical languages. Thus, variety of functional roles can induce conflict, though this conflict is frequently characterized as productive, as the disagreements and disputes allow for new and divergent ideas to inform decisions about the work being done (Jehn & Mannix, 1999; Mohr & Spekman, 1994).

Second, I argue that conflict increases by the level of separation in institutional values of the multipartner alliance, consistent with past theories that differences in institutional values harm communication and coordination and reduce the ability of the alliance to build trust (Madhok, 1995; Park & Ungson, 1997). I posit that separation in institutional values increases the overall level of conflict both within the alliance and with stakeholders outside the alliance because conflict breeds more conflict: separation in institutional values of partners drives conflict that in turn can promote opportunistic and self-serving framing across interactions by members of the alliance, thus resulting in more conflict in both internal and external interactions (Tenbrunsel & Messick, 1999; Schilke & Lumineau, 2018).

Lastly, I argue that financial disparity—the differences in the share of financial resources amongst the partners of the alliance—drives conflict, as disparity brings about feelings of inequity, competition, and distrust within a group (Sidanius & Pratto, 2004; Galinsky, Magee, Inesi & Gruenfeld, 2006), and organizations push back against the firm or firms holding the majority of resources in a project setting (Van Marrewijk, Ybema, Smits, Clegg & Pitsis, 2016). However, when examined in the context of a high level of separation in institutional values, I posit that financial disparity helps mitigate conflict, as financial disparity allows for the emergence of a dominant set of operating norms that helps to address the challenges that result
from disparate beliefs and values (Kiesler, 1983; Tiedens & Fragale, 2003). Financial disparity aids in the formation of a macroculture in the multipartner alliance—a shared set of values—that helps in reducing conflict and supports cooperation both within the alliance and with external stakeholders (Jones, Hesterly, & Borgatti, 1997). I argue that this effect helps to address the paradox multipartner alliances face with regards to separation diversity: the multipartner alliance needs partners with vastly diverse institutional values in order to navigate new contexts, but that diversity comes at a cost of coordination and conflict. Financial disparity helps to mitigate this effect of separation in institutional values.

In order to examine these hypotheses, this paper departs from prior research on interorganizational conflict in important ways and addresses the empirical challenges previously posed in studying conflict. I test these hypotheses with a sample of 2138 multipartner alliances that came together to execute on projects funded by the World Bank. I develop a unique measure of conflict through the coding of 345,000 pages of project documents written at the completion of each project executed by the multipartner alliance. Using natural language processing, I code instances of disputes, disagreements, arguments, and other forms of conflict between members of the multipartner alliance and between members of the alliance and external stakeholders on a given project, developing a measure of the level of overall conflict experienced by the multipartner alliance. As such, this research offers a first-of-its-kind picture of interorganizational conflict, as it does not rely on legal proceedings, surveys of manager perceptions, or qualitative case studies. I examine group level conflict, as opposed to dyadic conflict, and the research setting spans industries and geographies on a scale—2138 multipartner alliances comprised of 45,000 organizations across 135 countries—not previously studied. Lastly, to understand the impact of conflict on the alliance, I conduct additional analyses that examine 25,000 interim status reports to understand performance over time of the alliances and examine what mechanisms may be at play in mitigating the effects of conflict once it has
As such, this study advances research on interorganizational conflict and its effect on performance and offers a deeper understanding of conflict both between members of the alliance and between the alliance and other stakeholders. Using a unique and extensive measure of conflict, it contributes to the limited body of empirical work on interorganizational conflict. This paper also builds on the work of scholars such as Henisz, Dorobantu and Narcey (2014, 2017) that explores conflict between projects and external stakeholders by examining the composition of the alliance as a key factor that drives conflict. Furthermore, this work advances theory on the impact of diversity type on organizational outcomes. Recent work on interorganizational relationships and diversity type focuses on the direct effect of diversity and outcome (Bertrand, et al 2016), though does not yet explore the joint effects of diversity type. I extend this theory to acknowledge that diversity type may have both a negative and positive effect on conflict depending on the context, specifically depending on the other types of diversity present in the alliance, and examine how alliances may contend with the necessary tradeoff that diversity presents (Dorobantu, et al 2019; Bertrand, et al, 2016). In the closing of this paper, I will elaborate on these specific contributions and avenues for future research on this topic.

THEORY & HYPOTHESES

The multipartner alliance is a group of organizations that come together to execute on a common goal or mission. Multipartner alliances, also called multilateral alliances, quasi-firms, meta-organizations, or global project organizations (among other names) comprise networks of firms “not bound by authority based on employment relationships but characterized by a system-level goal” (Gulati, Puranam, & Tushman, 2012:573). Despite their challenges in coordination and complexity, multipartner alliances remain a popular and growing organizational form, as firms look to combine diverse capabilities to innovate, enter new markets, and complete large-scale

The multipartner alliance differs from a dyadic partnership in ways that are important to this research. First, the alliance is brought together with a collective contract and goal; and as such, exclusive bilateral contracts between each dyadic relationship in the alliance may be rare, as is seen in venture capital syndicates, finance syndicates or temporary project organizations. The relationships within the alliance are often informal, temporal, and the overall alliance may lack an explicit hierarchy and codified collaboration mechanisms (Eccles, 1981). Thus, multipartner alliances typically rely more heavily on relational governance than formal governance mechanisms, and on indirect reciprocity as opposed to direct reciprocity (Albers, et al 2007; Fonti, Maoret & Whitbred, 2017).

Thomas defines conflict as ‘the process which begins when one party perceives that another has frustrated, or is about to frustrate, some concern of his (1992: 265). In the multipartner alliance, conflict is theorized as a key factor in the functioning of the alliance especially as firms come together to achieve a common goal, but may have vastly distinct organizational goals (Eccles, 1981). Conflict in the multipartner alliance is important because it harms trust between organizations (Kim et al., 2004, 2006; Tomlinson et al., 2004), and trust has long been shown to be an important component for governing interorganizational relationships (Ring & Van de Ven 1992; Gulati 1995; Gulati & Gargiulo 1999), especially in the multipartner alliance where there is a greater need for social governance mechanisms (Gulati, Puranam & Tushman 2012, Heidl & Phelps, 2011, Das & Teng, 2002). Furthermore, conflict comes at a cost to the alliance. Resolution of conflict requires time and resources from the alliance partners that could have been dedicated elsewhere had no conflict arisen (Zaheer, McEvily & Perrone 1998; Steensma & Lyles, 2000; Henisz, Dorobantu & Narpey, 2014).

It should be acknowledged that there are benefits of conflict, including the reduction of group-think and promotion of creativity (De Dreu & Weingart, 2003), but the more widely held
and supported view is that conflict within an alliance ultimately hurts performance (Li & Hambrick, 2005; Christoffersen, 2013; Reus & Rottig, 2009; Schilke & Lumineau 2018). Though there is significant work that examines the antecedents of conflict in two-party relationships, including contract structure (Lumineau & Malhotra, 2011; Schilke & Lumineau, 2017; Klaus & Klerk 2017), difficulty and alternatives in the market (Gray & Handley 2011; Cannon and Perreault, 1999), the allocation of resources between partners (Lumineau & Malhotra 2011), common or divergent norms of behavior (Ganesan, 2010) and the level of interdependence and coordination (Assael 1969, Alter 1990), there is limited work directly measuring what drives conflict in the multipartner alliance, and subsequently, how that conflict affects performance (Christoffersen, 2013; Reus & Rottig, 2009).

In the organizational behavior literature, diversity has long been examined as a critical antecedent to conflict in a group (Jehn & Mannix, 1997). In the multipartner alliance, diversity of members allows the alliance to access distinct capabilities and enter uncertain or foreign markets (e.g., Dorobantu, et al 2019). Yet, diversity in the multiparty alliance presents a tradeoff, as differences amongst partners increases transaction costs and makes coordination more difficult. Scholars have increasingly explored how diversity amongst the partners in the multipartner alliance affect the ability of the alliance to build trust, coordinate activities, share knowledge, and communicate (Gulati, 1995; Parkhe, 1991; Lavie & Miller, 2008; Goerzen & Beamish, 2005); and subsequently how these behaviors impact the outcomes of the alliance, including formation, innovation, financial return to partners, and dissolution of the multipartner alliance (Wuyts & Dutta, 2014; Jiang, Tao & Santoro, 2010; Zhang, Gupta & Hallen, 2017, Dorobantu, et al 2019).

Diversity comes in multiple forms, and different forms impact the alliance in different ways. Strategy scholars have begun to leverage diversity scholars’ (Harrison & Klein, 2007; Stirling, 2007) categorization of three types of diversity—variety, separation, and disparity—to examine diversity in multipartner alliances and other forms of interorganizational relationships
Consistent with past diversity scholars and work done by Bertrand & Lumineau (2016), I take into account the context in examining diversity and conflict, and acknowledge that I cannot capture all aspects of diversity in the multipartner alliance. As such, I focus on the specific aspects of each diversity type—variety of functional roles, separation in institutional values, and financial disparity—that in particular impact the ability of the multipartner alliance to build trust, share information, and coordinate activities, all critical to conflict in the multipartner alliance.

**Variety of Functional Roles**

The first type of diversity I explore is variety. Variety is differences in kind or type, and implies distinct information or knowledge (Harrison & Klein, 2007). For example, minimum variety could be an alliance comprised of partners from the same industry (Jiang, et al), or similar years of operating (Bertrand et al 2016). Maximum variety could be an alliance where each partner comes from a different industry. Variety of experience, background, or knowledge amongst partners in an alliance allows the alliance to bring together complementary and distinct information to build new products, innovate, or enter new markets. Thus, knowledge that is transferred amongst partners with high variety is complementary and creates value, as opposed to knowledge that is redundant when there is limited variety amongst partners (Goerzen & Beamish, 2005). In particular, alliances characterized by a set of partners from a variety of functional roles (e.g., marketing, manufacturing) exhibit greater knowledge sharing and higher performance (Jiang, et al 2010; Lee, et al 2017). Multipartner alliances that can draw upon unique and diverse pools of knowledge resulting from differences in functional roles can make more effective decisions and deliver more creative products (Bruyaka & Durand, 2012; Goerzen & Beamish, 2005).

Despite the general consensus that variety of functional roles has a positive impact on
alliance outcomes, impact of variety of functional roles on conflict is not as straightforward. That is because there are coordination costs as alliance members seek knowledge from partners that are different from them—especially as partners with different functional roles may work from different operating norms and use different terminology and language (Jiang, et al 2010). In navigating these differences, conflict does occur; however, the conflict that arises because of high variety is typically productive conflict (often referred to as “task” conflict) (De Dreu, et al 2003). This conflict that arises because of distinct information and knowledge allows for new and divergent ideas that inform decisions about the work being done (Jehn & Mannix, 1999; Mohr & Spekman, 1994). However, despite these challenges, the widely held belief is that variety of functional roles in the multipartner alliance is beneficial to overall alliance functioning. Partners in these alliances are incentivized to share information in order to access and combine unique knowledge, which in turn reduces the hazards of opportunism and reduces negative conflict (Luo & Park, 2004). Thus, multipartner alliances characterized by variety of functional roles experience conflict, but this conflict is in service of better ideas and decision-making (and thus, may be beneficial to the successful functioning and performance of the alliance). I predict that greater variety of functional roles increases conflict experienced by the multipartner alliance.

It is important to note that a lack of variety of functional roles also has an impact on conflict, and specifically, has an impact on unproductive conflict in an alliance. Partners from the same functional backgrounds may compete with each other outside the bounds of the alliance which can create conflict within the alliance for three primary reasons. First, competitive partners have greater incentive to take advantage of their counterparts and may seek to access their partner’s competencies or knowledge, resulting in trust issues between the partners (Park &

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11 This dynamic is borne out in the findings of Jiang, et al 2010 in their exploration of alliance portfolios that showed an inverted “U” relationship with regards to variety diversity: too much created overwhelming coordination costs, but too little was detrimental to performance as well.
Second, partners in the alliance may have overlapping or unclear roles and may seek to play the same roles, thus resulting in conflict on how work is allocated (Davis, 2016). Lastly, competition between partners creates conflicting interests, as it creates challenges to devise mutually beneficial goals within the alliance (Park & Ungson, 1997).

The context of this research, global projects, provides clarity on the competing theories of the impact of variety of functional roles and conflict. In the global projects of this research setting, firms bid and are selected for specific contracts and scopes of work. Therefore, despite multiple firms having the same functional background, there is a clear allocation of work required and specific documentation of a firm’s role on the project. Thus, I expect that overlapping functional backgrounds in this research context to have less of an impact on conflict due to competition over how work is allocated. I posit:

**Hypothesis 1:** The level of conflict experienced by the multipartner alliance is positively related to the variety of functional roles of its partners

**Separation in Institutional Values**

Diversity classified as “separation” is the differences in the values and beliefs in a group (Li, et al 2017; Harrison & Klein 2007; Stirling, 2007; Mohr, Goerzen & Beamish 2016). Separation is measured along a continuum, such that groups classified with high separation contain members, for example, on opposite sides of an opinion. Low separation in a group contains those members with similar opinions. In general, high separation increases the coordination costs of members of the multipartner alliance, as differences in attitudes, beliefs and values, can harm trust, make information sharing more difficult and ultimately induce conflict. Past work has shown that partnerships with high separation of beliefs and values experience worse performance, including greater likelihood of dissolution (Mohr, Goerzen & Beamish 2016).
In particular, separation in institutional values is important in explaining partner behavior in the multipartner alliance, because partners’ home institutional environments shape the ways of communicating, collaborating, and interacting with the other partners, critical factors to the effective operating of the multipartner alliance. A company’s home institutional environment is important because it shapes its values, norms, beliefs, and a way of operating (Kostova, 1999). For example, a firm coming from a country that has strong regulatory institutions protecting intellectual property may act differently (e.g., be more willing to share information given protections in place) than a firm that comes from a country with a weak set of IP regulations. And, scholars have long shown that firms represent the values and norms determined in their home country (Hennart and Zeng, 2002; Park & Ungson, 1997; Parkhe, 1991). Shared expectations of appropriate behavior, including organizational practices, routines and norms of firms and society impact how firms interact and build relational capital (Henisz, Levitt, & Scott, 2012). This is because a shared set of values and norms whether between individuals on a team or organizations reduces conflict, increases trust and cooperation, eases knowledge sharing, and creates more deeply embedded and stronger social ties.

Extensive research shows that differences in institutional values amongst partners impacts the performance and longevity of an alliance (e.g., Weber, Shenkar, & Raveh, 1996; Barkema & Vermeulen, 1997). Though partners with a high separation in institutional values is often necessary as alliance navigate new or uncertain environments (Dorobantu, et al 2019), these differences also pose problems, as differences impede communication and cooperation, and increase the costs of coordination (Lavie & Miller, 2008; Hennart & Zeng 2002, Wassmer, 2010).

Multipartner alliances characterized by high separation in institutional values contend with a varied set of operating expectations, management practices and values. These differences can impede the ability of the multipartner alliance to build social capital, trust and relationships, and can impact the ability of the multipartner alliance to effectively communicate and cooperate,
resulting in greater conflict and discord (e.g., Goerzen & Beamish, 2005; Mahalingham, Levitt & Scott, 2011). Tensions arise because of differences in norms and values and a lack of a shared understanding in operating (Wassmer, 2010, Parkhe, 1993). Conversely, familiarity and a shared understanding of operating norms results in more communication, reduces conflict, and allows for easier conflict resolution if it is to occur (Gruenfeld, Mannix, Williams, & Neale, 1996). Shared expectations and a shared way of operating reduces the likelihood of misinterpretations and misunderstandings (Gulati & Singh, 1998; Mayer & Argyres, 2004).

As long explored in organizational behavior, the conflict resulting from differences in core values and beliefs – called “relationship conflict”—harms group performance, creating a cycle of hostility and escalating conflict (Baron, 1991; Janssen, van de Vliert, & Veenstra, 1999). Because this type of conflict is a result of the characteristics of the members of the group, this conflict is latent: it is ever-present on the team and exists as friction and long-lasting resentment amongst group members (Bar-Tal, 1989; Schein, 1986). Conflict drives more conflict, and in particular, reduces cooperative-framing to relationships in the alliance and increases the incentives for opportunism and more self-serving behaviors (Cao & Lumineau 2015; Dwyer & Walker 1981). I posit that this self-interested framing that results from conflict driven by diversity spills over to the other relationships and interactions that the members of the alliance have. Thus, greater conflict between alliance members and other stakeholders results: alliance members approach those interactions not from a cooperative or goodwill trust-building perspective, but from a transaction-oriented and self-serving perspective.

Multipartner alliances characterized by high institutional diversity lack a shared set of operating norms and a shared sense of familiarity which drives conflict. This conflict results in greater opportunistic and self-serving behaviors across all interactions, which in turn results in greater conflict with external stakeholders. Thus, I posit that these alliances experience greater overall conflict:
Hypothesis 2: The level of conflict experienced by the multipartner alliance is positively related to the separation in institutional values of its partners.

Financial Disparity

The third type of diversity, disparity, is “differences among unit members in their portion of a valued resource” (Harrison & Klein, 2007: 1207). These resources may be financial, social status, pay, prestige or other sources of power. Disparity is measured as dispersion across a hierarchical continuum, such that disparity in a group takes into account both the value (i.e., the resources) and the concentration of those resources in the group (Harrison & Klein, 2007). In general, disparity (whether in power, pay, prestige, or status) across members of a team can diminish trust and cooperation, and induce conflict (e.g., Bourgeois & Eisenhardt 1988; Bloom 1999). At the group level, greater access to resources by one group over others creates perceptions of unfairness by the non-dominant group, and conflict and rivalry become prominent (Sherif et al, 1961).

In particular, financial disparity—the distribution of the financial revenues of the alliance—is important in the functioning of the alliance, as members of the alliance control (and at times, compete) for the fixed share of revenues allocated on a project. Maximum financial disparity implies that the financial revenues of the alliance are controlled by a small number of alliance partners; minimum disparity implies a more equitable distribution of revenues in the group.\footnote{As a point of clarity, it is important to note that financial disparity is distinct from majority control or majority ownership, though many of the same mechanisms may be consistent across both. This is because financial disparity takes into account both the number of members, as well as the relative share or value each member holds. Thus, Group X that has four members, with member A holding 50% of the resources, and members B, C, D holding 12.5% of resources may operate very differently than a group Y that has member A holding 50% of the resources, member B holding 48% of the resources, and members C and D each holding 1%. Group Y may face far more gridlock and competition than Group X given their structures.} I posit that financial disparity increases the conflict experienced by the multipartner alliance, as members of the alliance compete for resources and experience feelings of inequity.
and distrust. Financial disparity, and more specifically the direct impact of disparity on conflict in the multipartner alliance is not well-established (Albers, Schweiger, & Gibbs 2018), but there is extensive research on the impact of the allocation of financial resources in a group.

As long explored by sociologists, contact between unequal groups inevitably results in conflict (Pettigrew, 1980; Messick & Mackie, 1989). This link between disparity and conflict, both at the individual level and the group level, is well-established. Differences in resources across members of a team can diminish trust and cooperation, and induce conflict (e.g., Bourgeois & Eisenhardt 1988; Bloom 1999). As articulated by social dominance theory, divisions are established due to the ability of a group to claim resources over another, which creates perceptions of unfairness (Siddanius & Pratto, 1999). The group in control of the resources feels justified in its access to resources, whereas the group with limited resources believes the status quo is unfair. This dynamic leads to competitiveness and conflict, as the groups seek to claim these finite resources (Sherif, et al 1951). Conversely, equal status amongst group members is a necessary condition to optimal group functioning and the reduction of prejudice amongst group members (Allport, 1954, Pettigrew, 1990).

Amongst firms, financial disparity drives instability in a network and creates conflict. Conflict results because disparity reduces cooperative interactions (Dwyer & Walker, 1981), prevents perspective-taking of the other party (Galinsky, Magee, Inesi & Gruenfeld, 2006), incentivizes less integrative behavior (Lin & Germain, 1998) and reduces information sharing (McAlister, Baderman & Fader 1986). Equal resources between two firms produces mutual accommodations (Harrigan, 1988) and reduces the likelihood of retaliatory behaviors (Dwyer & Walker, 1981). In the multipartner alliance, disparity of status has been shown to lead to factionalism and instability (Heidl, et al, 2014). Furthermore, financial disparity establishes informal dominance by the members of the alliance who have greater access to financial resources. In two party relationships, higher levels of conflict result when aspects of the
relationship (e.g., legal contracts) establish dominance (Lumineau & Malhotra, 2011, Schilke & Lumineau, 2018). Dominance in a partnership harms the formation of goodwill trust, increases suspicion and antagonism, reduces the desire to work cooperatively, and in turn, induces greater amounts of conflict (Deci & Ryan, 1987; Scherer, Abeles, & Fischer, 1975; Tenbrunsel & Messick, 1999; Malhotra & Murnighan, 2002).

In the multipartner alliance, financial resources are allocated across the partners, and in some instances, these financial resources are highly disparate—with a firm or small group of firms controlling the majority of the financial resources. Financial disparity creates feelings of inequity, competition, and a perception of dominance, which in turn drives greater conflict between partners. Thus, I posit:

_Hypothesis 3: The level of conflict experienced by the multipartner alliance is positively related to the financial disparity of its partners._

There are, however, benefits to financial disparity in a group. Though inequity and competition arise, financial disparity allows for greater structure, a dominant set of operating norms, and efficiency in decision-making and resolving conflict once it does occur (Winch & Leiringer, 2016; Lumineau & Malhotra, 2011). Multipartner alliances with separation in institutional values are comprised of firms with highly varied norms, values, and ways of operating. Thus, conflict results from clashing expectations and from the challenges in establishing a common way of operating. Past research has shown that opportunistic behavior, which drives conflict, can be reduced by the establishment of a shared set of assumptions, values and beliefs (Jones, Hesterly, & Borgatti, 1997). Thus, in situations of separation in institutional values, financial disparity may reduce the level of conflict experienced by the multipartner alliance in two primary ways: 1) by imposing a dominant set of operating norms and
expectations of behavior and 2) by more quickly and efficiently resolving the conflict that results from separation in institutional values once it does occur, thus reducing spillover conflict.

First, as asserted by the dominance complementarity view, a party or group holding the majority of resources is able to dictate a way of operating and clarify the norms that all members are expected to ascribe to (Kiesler, 1983; Tiedens & Fragale, 2003). A dominant group can act as a “peacemaker” between members of the alliance (Heidl, et al, 2014) and other partners may look towards the dominant partner for the preferred way to operate. For example, Heidl, et al 2014 showed that a dominant and central partner can mitigate schisms and the negative effects of faultlines in an alliance. Bertrand & Lumineau (2016) showed that a powerful member of a cartel can increase the cartel’s longevity given the clear operating norms brought about by this disparity.

Second, financial disparity helps with efficiency in decision-making, in particular, in resolving conflict once it does occur as the dominant partners can more easily act at will and make decisions by fiat (Galinsky, et al 2006). Lumineau & Malhotra (2011) found that disparity in power reduced the cost and time to resolve conflict once it does occur. Given that conflict begets more conflict (Greer, et al 2008; Baron, 1991; Janssen, van de Vliert, & Veenstra, 1999), in the presence of high financial disparity overall conflict may be reduced: when conflict between differing institutional values does arise, it is resolved quickly, may not escalate, and does not spill over into other instances of conflict. Thus, I posit:

\[ H4: \text{ Greater financial disparity lessens the impact of separation in institutional values on the level of conflict experienced by the multipartner alliance.} \]

METHODS & SETTING

The setting for this study is the set of all multipartner alliances that form to execute World Bank-funded projects that began and ended between 1999 and 2016. The World Bank
provides funding, in the form of long-term concessionary loans to countries for projects that will impact the economic and social development of a particular country or region. The Banks supports in the identification, preparation, monitoring, and evaluation of these projects in collaboration with the host countries. Private companies, individuals, and NGOs are contracted to each project by the borrowing country sponsor and comprise the multipartner alliance that executes the project. These organizations that execute the projects are selected through a variety of procurement methods (e.g., international competitive bidding, national competitive bidding).

This setting is attractive for many reasons. The primary reason is that these projects do not appear to be fundamentally different from other large global projects not funded by the World Bank. Often, these World Bank-funded projects are partially funded by other private or government sources. Multiple funding sources are common on large global projects, including funding from a mix of public and private sources. Second, the projects of this dataset span countries and industries, and the companies executing these projects span a variety of home countries, levels of prior experience, and experience with local partners, as discussed below. Furthermore, these companies also execute on projects and form alliances not funded by the World Bank. Finally, while there is a great deal of research exploring drivers of project outcomes using the World Bank Project Database and IEG Performance Database (for example, see Isham, Kaufmann & Pritchett 1997, Isham & Kaufmann 1999; Kilby, 2000; Dollar & Levin, 2005), there has been little consideration of the firm-level effects on project-level outcomes (with the notable exceptions of Malik & Stone (2017) and McLean (2017)). Thus, this research fills an empirical gap in the international aid and development literature by extending the existing analyses to include the effect of the contractors who execute these large-scale development projects.

13 The World Bank refers to host countries as “borrowing countries,” but for the purposes of this study I follow nomenclature used in international business research and refer to the country where the project takes place as the “host country.”
The dataset is comprised of four datasets: The World Bank Project Database, the World Bank Contractor Database, IEG Performance Database and a corpus of project documents including Implementation Completion and Results reports for each project, and Implementation Status Reports for a subset of projects. The data are organized with one observation for each new contracting relationship (i.e., firm, individual or NGO) entered to support a World Bank project. In all, there were 157,180 contracting relationships introduced between 1999 and 2016 across 5864 projects (the Contractor Database started collecting data in 1999). From this dataset, I combined contract observations (and summed contract amounts) to ensure that for each unique project there were not multiple observations with the same contractor, resulting in a dataset of 102,203 contracting relationships. Given that the theoretical test of these data is of diversity and financial asymmetry, it was important to capture the full financial share that a single contractor owned on a given project. Of those, 43,958 contracting relationships were not associated with a specific project, did not include a conflict data, or were associated with projects that started before 1999, leaving 58,245 contracting relationships across 2,592 projects. I dropped 119 projects that took place at the regional level, given that the theoretical test of institutional differences is at the country level. From the dataset of 2473 projects and 55,473 contracting relationships, I dropped those projects (203) that have only one or two contracting relationships. Given that the study is of group-level differences within the project, I tested the model on projects with three or more contracting relationships. Finally, I dropped those projects that did not have an associated Implementation Completion and Results report or did not have data on World Bank Leadership (for selection model) (123 projects). The model was thus tested on a dataset containing 52,659 contracting relationships across 2147 projects.

These 2147 projects took place across 135 countries, with China hosting the most projects at 131, and Brazil hosting the second greatest number of projects at 74. Given that the projects are partially funded by the World Bank, all of the projects take place in developing
countries, with the average GDP per Capita across all countries at $4,354, with the maximum GDP per capita at $23,159. The average number of contracting relationships on a project is 24, the average size of a project is $52,500,000, and the average contract size is $2,614,047.

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**Dependent Variables**

*Level of Conflict:* The emphasis of this study is the level of conflicts, disputes and disagreements that the partners of the multipartner alliance experience during the lifespan of the project. Measuring conflict experienced by the multipartner alliances poses a challenge, as measurement is commonly done through survey data, which rely on managers’ past perceptions of whether conflict occurred; or it is done through the analysis of contractual disputes that rise to the level of legal action (Lumineau, et al 2015). Thus, I look to build a measure that captures the level of conflicts, disputes, arguments and disagreements experienced between members of the multipartner alliance and the alliance and external stakeholders that do not necessarily rise to the level of legal action; nor that rely on the memory or perceptions of the managers directly involved in the conflict.

To measure the level of conflict experienced by the multipartner alliance, I develop a coding of the dependent variable from each project’s Implementation Completion and Results report (ICR), a detailed document written by the World Bank at the completion of the project.¹⁴ These reports are “prepared to satisfy accountability needs and provide lessons from completed operations” and in general, describe project design, implementation, problems encountered, and

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lessons learned, and outcomes (World Bank, 2011; Winters, 2018). The report is compiled by World Bank staff with input from key project stakeholders, including government agencies, co-financiers, and others.

In general, the ICRs do not have a structured or obligatory section that to capture the instances of arguments, conflict, disputes or disagreements experienced by members of the multipartner alliance. For instance, there is no specific measure gathered by the Bank that captures how much conflict is experienced by the alliance in undertaking the project. Sections that discuss instances of disagreements or disputes amongst alliance partners and amongst alliance partners and external partners are written in unstructured text form and are often embedded in the discussions of other parts of the project. For example, in a coastal restoration project in Tunisia, text in the project document states: “By project completion, INSTM was unable to settle a dispute with and between the two consulting firms involved in the study.”

Therefore, I coded instances of conflict through the use of a machine learning algorithm, which helped to both identify instances of conflict, as well as help to refine the coding scheme in order to capture instances of conflict that may not have been in the original code. The use of the machine learning algorithm to develop a set of labeling rules (i.e., a list of words and phrases) that capture types and level of conflict helps to not only reduce bias in the code, but also to ensure that false positives (e.g., “anti-conflict measures”) are not captured (see King, Lam & Roberts, 2017).

With the support of the machine learning tool, I created a labeling rule to code instances of conflict through the use of a subject – verb pairing. The list of subjects included terms such as “companies,” “suppliers,” “contractors;” the verbs (and the stems) included “disagree,” “argue,”
“dispute” (“disagreement” “argument”). An instance of conflict was coded when any of the subject terms were within ten words of proximity to the verb terms.\(^{15}\)

Examples of conflict include:

“WWTP had been 80 percent completed - the same physical progress rate it had reached in 2011, prior to the dispute between ONAS and its contractor which went into international arbitration.” (P086865)

“[There were] delays due to (i) disagreements between the client and the international consultant on technical and financial matters related to the preparation of tender documents” (P090656)

“After contract award, when disputes on implementation arose between the EEC and Contractor, EEC felt its original assessment had been correct.” (P057929)

“The contractual dispute between the MoE and the Engineering Consultant involved additional work undertaken by the Consultant without having signed a contract addendum.” (P098850)

For each project, the separate instances of conflict are summed, and the total is normalized by project document word count (per 1000 words) to create an overall conflict score (Level of Conflict). A larger conflict score indicates higher levels of conflict experienced by the multipartner alliance.

**Independent Variables**

**Variety of Functional Roles:** Functional diversity is the differences in functional purposes of partners (Jiang, et al 2010). Functional differences impact the ability of the alliance to access non-redundant and complementary knowledge and expertise. Based on prior research by Jiang, et al, functional differences are measured by the primary activities that the firm undertakes (e.g., marketing, consulting, etc.). The World Bank categorizes each contractor with a “procurement type” which is “the overall purpose of the work or services performed under the contract” (World Bank).

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\(^{15}\) As a robustness check of the machine learning algorithm, I also created a list of conflict words developed through the Goldstein Scale for WEIS Data (Goldstein, 1992), a measure that was developed to capture the intensity of conflict or cooperation. Though my research does not distinguish intensity of conflict (e.g., assault is more intense than complain), I leveraged the scale as an additional robustness check. Direction of results remained the same.
Bank Project Codebook). There are 45 different procurement types (e.g., Construction Supervision, Policy & Strategy, Implementation Support) and the top 25 procurement types cover approximately 85% of all contracts. Following Jiang, et al (2010) and Harrison & Klein’s (2007) approach to measuring functional diversity in a group, I use the Blau Index of Variability (Blau, 1977). The Blau Index allows for the measure of diversity of categorical variables within a group. For each project organization, I compute the Blau Index (Variety) using

$$1 - \sum \left( \frac{ni(n_i - 1)}{n(n - 1)} \right)$$

where $n_i$ equals the number of members in the functional group $i$, and $n$ equals the total number of members in the group.

**Separation in Institutional Values:** Separation in institutional values is the institutional differences between the home countries of the firms within the alliance. Institutional differences, that is, the differences in the normative, cognitive, and regulative institutions across countries impact organizational behavior, including choice of countries, partners, and entry modes (Henisz 2000, Jensen & Szulanski 2004, Kostova 1997, Xu & Shenkar 2002). Based on prior research by Lavie and Miller (2008), these institutional differences are measured by the World Governance Indicators (WGI), a set of six values that measure country differences across administrative and political national environments. The World Governance Indicators rate countries on a scale of 0-100 on the following six values: voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law, and control of corruption. As discussed by Harrison & Klein (2007), much richness of heterogeneity could be lost in aggregating the six WGI values when generating the diversity measure. Following Harrison & Klein (2007), for each WGI value, I calculated the average score of each partner’s home country between the years of 1999-2016. Then, I computed an average project score for each of the six WGI values and took the standard deviation over the project WGI score. For each project organization, I computed standard deviation using

$$\sqrt{\frac{\sum (S_j - S_{mean})^2}{n}}$$

where $S_{jn}$ refers to
contractor $j$’s home country aggregate WGI score on value $n$ and $S_{\text{mean}}$ refers to the project’s average WGI score on that same value $n$. Separation in institutional values (Separation) is the average standard deviation across all six of those scores. Standard deviation is used as it allows for comparisons across project organizations of different sizes, as the standard deviation does not increase with the size of a unit or team (Harrison & Klein, 2007). Larger standard deviations indicate greater separation in institutional values on the project.

Financial Disparity: Financial disparity is measured by the financial share of the contract allocated to each organization in the multipartner alliance. Financial disparity impacts efficiency, coordination, conflict resolution between organizations and individuals operating at the boundaries of those organizations (Lumineau & Malhotra 2011; Bae & Gargiulo, 2004; Blodgett 1992; Bleeke & Ernst, 1991). Based on prior research by Lumineau & Malhotra; 2011 and others, financial resources are measured by the revenues generated by each partner, and thus for this setting, the revenues are defined as the amount of money allocated to each partner to execute the project.

To capture both the size and share of control, my primary measure of financial asymmetry is a measure of a Herfindahl Index Score for each project organization, a measure most often used to measure the concentration of industries, as determined by market shares of firms. The Herfindahl Index measures the concentration ratio, so it gives more weight to larger contractors and takes into account the number of contractors in the multipartner alliance. For each multipartner alliance, I computed a Herfindahl Index (Disparity) score using $\sum_{i=1}^{N} s_i^2$, where

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16 As an additional robustness check, for each partner’s home country, I averaged the six factors between the year 1999-2016 to get an aggregate WGI score. Then, following Harrison and Klein’s (2007) approach to measuring the differences of values on teams, I computed an average project WGI score and took the standard deviation over the overall project WGI score. For each project organization, I computed standard deviation (Separation) using $\sqrt{\sum (S_j - S_{\text{mean}})^2/n}$ where $S_j$ refers to contractor $j$’s home country aggregate WGI score and $S_{\text{mean}}$ refers to the project’s average WGI score. Results remained robust.
$S_i$ is the ratio of contract amount for contractor $i$ over total amount across all contractors and $N$ is the number of contractors on the project. The Herfindahl Index ranges from $1/N$ to 1, where values closest to 1 represent high concentrations of resources (greater financial disparity).\(^{18}\)

**Interaction:** The interaction between Separation in Institutional Values and Financial Disparity was operationalized through an interaction term: $\text{Separation} \times \text{Disparity}$.

**Other Independent Variables**

I first control for the level of experience that members of the multipartner alliance have with each other and the host country context in which they are operating. Prior experience with partners is measured by the total number of instances that partners in the alliance have worked together on past World Bank projects (Partner Experience). For example, in multipartner alliance with firms A, B, C and D, if firms A and B have worked on two prior projects together, and firms B and C have worked together on one prior project, the alliance would receive a score of “3”.

Firms can learn how to operate in a host country and build knowledge through the experience of working in that country, which may reduce the likelihood of conflict between partners and external stakeholders. Thus, I calculated the overall level of experience that all partners in the multipartner alliance have in working in the project’s host country. I counted the number of times each alliance partner has worked on another World Bank project in the host country (Country Experience).

An extensive body of work demonstrates the importance of host country level characteristics on project outcomes. Differences in country economic strength, institutional

\(^{18}\) Financial disparity is measured at the group level and takes into account both the number of firms within the alliance and the relative share controlled by each firm. For example, this allows the measurement to capture the differences between a multipartner alliance comprised of four organizations, with the lead organization controlling 50% of the project resources, and the other three organizations controlling 12.5% each versus a multipartner alliance comprised of four organizations with the lead organization controlling 50% of the project resources, and the other three organizations controlling 48%, 1% and 1%.
strength, policies, and infrastructure have all been shown to significantly impact the performance of these projects. Following Dollar & Levin (2011) and Denizer, Kauffman, and Kraay (2011), I control for the strength of the host country economy with a measure the GDP per capita averaged over the years of the dataset (GDP / Capita). I also control for the institutional stability of the host country with a measure of the average WGI score of the host country (Institutional Strength), and control for other country-level effects through the use of country fixed effects (Country).

Additional project level variables also significantly impact the performance of projects (Denizer, Kauffman, & Kraay 2011). To account for these, I control for project complexity as measured by the natural log of the size of the project in dollars (Project Size), as larger projects may be more complex and experience more conflict. I also control for project length, as longer projects may be more complex and have a longer time frame in which to experience more conflict (Project Length). I control for the effects of sector differences by using a dummy variable for project sector (Sector), as well as annual differences with a dummy variable for the year that the project closed and final project report was written (Year), consistent with past research (Denizer, Kauffman & Kraay, 2011). Lastly, given that financing from the World Bank comes in different forms, I account for the lending instrument (Lending Instrument) also consistent with past research (Kilby & Michaelowa, 2018).¹⁹

Selection

Research exploring multipartner alliances is limited to the set of firms that are selected to form the alliance, thus, selection bias can be present in studies of the multipartner alliance. This study of multipartner alliance conflict is limited to that set of contractors that were chosen to participate in the multipartner alliance. Thus, the variables of interest—separation in institutional

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¹⁹ There are 13 different lending instruments that the World Bank deploys, depending on timing, project needs, and the borrowing agency. The most common instrument (1,460 projects) is the specific investment loan (SIL). Other instruments include technical assistance loans, financial intermediary loans, and emergency recovery loans. (World Bank Lending Instruments: Resources for Development Impact, 2001)
values, variety of functional roles and financial disparity—may influence the formation of the multipartner alliance in the first place and bias the results of the model. Contractors are selected for the multipartner alliance through a bidding process run by a third-party (e.g., the project management office). For each contract in the multipartner alliance, the bidding process involves different forms of bidding (called “procurement methods”). For example, the contractors may be selected on a cost-basis or a cost and quality basis.\textsuperscript{20} Thus, selection of the contractors to the multipartner alliance is not random and must be incorporated into the model.

To account for potential endogeneity arising from the selection of contractors into the multipartner alliance, I constructed a quasi-control group of matched contractors that did not form an multipartner alliance and employed a probit model that predicts whether or not the multipartner alliance forms in order to obtain the selection parameter ($\lambda$). I also control for procurement method in the first stage of the model. I constructed the sample for the selection model by matching each contract in the study to a contract in the dataset of all World Bank contracts (102,203), following a similar approach used by Dorobantu, et al (2019), Heidl, et al (2014), Zhang, et al (2017). I matched contracts based on procurement type and sector. Procurement type has 45 categories of what the contract does or provides to a project (e.g., Construction Supervision, Raw Materials - Chemicals). Sector has 10 categories (e.g., Transportation, Education, Mining). I matched on procurement type and sector to take into account that different types of contractors come together to execute a project, and that not all firms within the dataset are equally capable of performing the required work for a contract. This approach differs from other approaches, which consider alliance partners to be of similar

\textsuperscript{20} The World Bank denotes 17 different procurement methods that are typically aligned to contract size and type. Procurement methods include categories such as \textit{International Competitive Bidding}, \textit{National Competitive Bidding}, \textit{Least Cost Selection}, and \textit{Quality and Cost Selection}. 
capabilities and thus match on extrinsic characteristics such as alliance year, number of partners, location or industry.

I created five unrealized multipartner alliances for every one realized multipartner alliance, matching each of the 55,370 contracts across the 2336 realized syndicates with a contractor from the universe of potential contractors. Thus, the unrealized multipartner alliances were the same size (number of contractors) as each realized multipartner alliance. So multipartner alliance Z with three contractors would have five matched multipartner alliances, each also containing three contractors of the same procurement type and industry as the three contractors in multipartner alliance Z. Because I randomly selected contracts from the set of all matched contracts, an unrealized multipartner alliance could be completely different from the realized multipartner alliance, or it could differ by just one or two contracts (see Zhang, et al 2017). The resulting sample contained 332,220 contracts which resulted in 12,828 multipartner alliances: 2336 realized multipartner alliances (55,370 contracts) and 10,690 unrealized multipartner alliances (276,850 contracts).

The selection model includes the variables of interest included in the analysis of multipartner alliance conflict (second stage). I included an exogenous variable that indicates whether the lead contractor is from a country that has a seat on the World Bank Board of Executive Directors during the year when the contract is signed. The Board of Executive Directors “consider and decide on loan and credit proposals…and they decide on policies that guide the general operations of the bank.” (World Bank Annual Report 2000:35). The Board is

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21 Past research suggests matching each realized alliance with at least two unrealized alliances (e.g., King & Zeng, 2001).
22 Lambda was calculated using only whether the lead contractor’s home country had a seat on the Exec Board given that I am looking to predict formation of the multipartner alliance, not selection of the specific contractors given that the level of study is at the group-level, not at the individual firm level. However, the instrumental variable also predicts selection of the individual contractors into a multipartner alliance, a finding that is in itself interesting, but outside the bounds of this study.
comprised of 25 representatives from shareholding countries, with the five largest shareholding countries each having a permanent seat on the Board, while the remaining 19 Board seats are elected for two-year terms (see Kaja & Werker (2010) for a detailed overview of the Board of Executive Directors). I expect that lead contractors from countries with an Executive Director seat during the contract signing year affects the likelihood of the formation of the multipartner alliance but does not affect conflict within the multipartner alliance. Past research has shown that World Bank disbursement to borrowing countries is influenced by Executive Director membership (Kaja & Werker, 2010), and that selection of contractors into World Bank funded projects are also affected by political influence and economic ties to the contractor’s country (McClean, 2017). As hypothesized, board membership aligned to the lead contractor predicts formation of the multipartner alliance, but the board membership of the lead contractor did not predict the level of conflict in the alliance (the second stage model). I estimated the inverse Mills ratio \((\lambda)\) from the probit regression model that estimates the probability of formation of the multipartner alliance.\(^{23}\)

**RESULTS**

The dependent variable \((\text{Conflict Level})\) is a continuous variable that measures the level of conflict coded in the project document, normalized by the length of the project document. The variable ranges from 0, for those projects in which not instances of conflict or disputes were coded in the project documents to a maximum of 1.65 (instances of conflict per 1000 words in the document). Given the continuous nature of the dependent variable, the primary estimation approach was an ordinary least squares regression model to test the core hypotheses. Table 1 provides means, standard deviations and intercorrelations for all variables used to assess conflict.

\(^{23}\) As a robustness check in the first stage model, I used a rare events logit \((\text{firthlogit})\) and there were no differences in the direction or significance of the estimations predicting formation of the multipartner alliance.
Table 2 summarizes the results of five separate regression models designed to test the four hypotheses. Model 1 includes only control variables. Models 2 through 4 examine the relationships between conflict, variety of functional roles, separation in institutional values, and financial disparity through direct effects and Model 5 examines the interaction of separation and financial disparity, all after controlling for experience, host country institutional strength, project length, project amount, and country, financing, year and sector. Models 6 examines the full model.

Hypothesis 1 suggests that as the variety of functional roles of the multipartner alliance increases, the level of conflict experienced by the multipartner alliance will increase, as differences in functional backgrounds increase the challenges in exchanging information, as well as increase the ideas and knowledge brought forward to determine the best course of action. The effect of variety is positive and significant ($p<0.10$). This positive, significant effect remains consistent across the full model of direct effects ($p<0.10$). My findings are aligned with past research that predicts that high variety will increase conflict, as partners from different functional backgrounds must navigate different modes of operating, ways of communicating, and terminologies, unique to their own function. However, the conflict that results from this variety is more likely to be of the productive type. Thus, the examination of the type of conflict brought about by variety of functional roles is an important consideration for future examination. I discuss additional considerations in the Conclusions section of this paper.

Models 3 and 4 explore the direct effects of separation in institutional values and financial disparity without the addition of any interaction terms. The effect of separation is
positive and but not significant across all models. Thus, Hypothesis 2 is not supported. Past theory suggests that separation in institutional values increases transaction costs, reduces communication and harms trust amongst the multipartner alliance and its stakeholders. Thus, I examine the non-results of separation in institutional values through additional analyses.

Hypothesis 3 suggests that greater financial disparity increases the level of conflict experienced by the multipartner alliance, as disparity fuels competition, harms trust, and increases feelings of inequity between partners. The effect of disparity on conflict is positive and significant ($p<0.10$) in Model 4. This result holds in the full model of direct effects (Model 6).

In Hypothesis 4, I predict that financial disparity lessens the impact of separation on conflict experienced by the multipartner alliance because disparity allows for a dominant and clear set of operating norms that reduce the conflict resulting from alliance partners with diversity of institutional values. In Model 5, the effect of separation x disparity is negative and significant ($p<0.05$), providing evidence that in instances of alliances with separation in institutional values, greater financial disparity reduces the level of conflict experienced by the alliance. Results remain significant ($p<0.10$) in the full models.

It’s important to note that the effect does not merely attenuate the impact of these diversity types on conflict, rather the interaction of financial disparity and separation in institutional values reverses the sign. Conflict is decreased in instances of high financial disparity and high separation in institutional values. Figure 3 shows the marginal effects of financial disparity at varying levels of separation in institutional values, and the marginal effects of separation in institutional levels at varying degrees of disparity. At the highest levels of disparity, the effect on conflict is indeed reversed. Disparity decreases conflict in the presence of high separation in institutional values.
Additional Analyses

I undertook additional analyses to better understand the results that did not correspond to my theory development, and to better understand the relationship between conflict and performance in the multipartner alliance.

First, I further explore the non-result of the direct effect of separation in institutional values on the level of conflict experienced by the multipartner alliance. In aligning with past theory, I predicted that separation in institutional values would increase the level of conflict experienced. However, I found no effect. In probing the non-results of this effect, I found that separation in institutional values did indeed significantly increase the level of conflict in the alliance, but only in those projects that were longer in duration (i.e., longer than the average project). In Models 7, 8, and 9 I show this effect. Models 7 and 8 split the sample in long projects (greater than 7.4 years) and short projects (fewer than 7.4 years), and Model 9 shows the interaction between separation in institutional values and project length. In Model 7, the impact of separation on conflict is positive and significant, and in Model 8, impact of separation on conflict is negative and significant: there is a reduction in conflict for short-term projects with high degrees of separation in institutional values. These results are consistent with theory in organizational behavior research that contends that certain types of diversity impact group functioning over time. Specifically, deep-level diversity—that is, diversity of values and beliefs—may not impact group cohesion early in the group’s formation. Rather, it takes time for values and beliefs to become conveyed, and thus have an impact on conflict (Harrison, Price & Bell, 1998).
Next, I explored the relationship between performance and conflict. It is generally accepted that conflict harms the performance of the multipartner alliance (Christofferson, 2014). I do not attempt to make a causal argument in order to empirically support this theory; however, I do look at performance over time in my sample to understand how projects with high conflict and low conflict may differ in their performance outcomes. Using approximately 25,000 interim status reports written over the life of the projects, I capture an interim measure of performance that measures how well the project at the time of the interim report is achieving its stated objectives. This performance score is determined by the World Bank team managing the project; thus, there are inherent biases consistent with self-reported measures of performance. Despite these biases, these interim performance ratings provide a useful indication of the change in project performance over time, despite the subjectivity of the measure and potential for the overall measure to be inflated (or deflated). This measure is written qualitatively as Highly Unsatisfactory to Highly Satisfactory; I convert these assessments to a 1 to 6 scale to further analyze (1 – Highly Unsatisfactory). Not all projects in my original sample have these interim results reports. Of my sample of 2147 projects, 1489 projects had interim project reports and thus interim measures of project performance. At the beginning of the project, high-conflict projects (those above the mean of conflict) and low conflict projects (below the mean) started out at approximately the same performance rating. However, over time, projects that experienced high levels of conflict decreased more than their low-conflict counterparts, resulting in a final rating of 4.14 versus 4.34 (and average across all projects of 4.31).

24 The “Interim Completion and Results Report” is a short document written throughout the life of the project. These reports are not written at consistent pre-set milestones (e.g., at the end of every six months), so in order to account for this, I combined the reports across percentage of project completion for each project. For example, a project that lasted ten years might have a report written every 6 months or so – I combined the performance score for all reports written in the first two years, second two years, etc., to get a score for each quintile of the project.

25 All projects = 4.91; High conflict projects = 4.90; Low conflict projects = 4.91
However, not all high-conflict projects suffered from poor performance: some high-conflict projects experience a greater decline in project performance than other high conflict projects. Of the 424 high-conflict projects, 80% either did not decrease in their final performance rating or decreased by only one point. 16% of projects decreased by two points or more from their initial project rating and 4% of high conflict projects improved. Using the same machine learning tool originally used to code the level of conflict, I examined two additional characteristics of these segments: the presence of conflict mediation activities and the presence of participatory mechanisms in the final project report. Conflict mediation includes terms such as *dispute resolution*, *conflict arbitration*, *disagreement alleviation*, and others. Participatory mechanism includes terms such as *inclusive approach*, *decentralized decision making*, *community participation*, *participatory decisions*. I generated both of these lists using a machine learning algorithm to reduce bias in my search criteria, and generated a mediation score and participatory score that is mentions of the term per 1000 words in the project document. For high-conflict projects, the segment of projects that got worse have significantly fewer mentions of participatory mechanisms than those projects that got better or those projects that stayed the same / decreased slightly (participation score = 0.045 vs. 0.065). The participation score of those projects that decreased is significantly different from the mean participation score ($p < 0.05$) and significantly different from those projects that did not greatly decrease ($p < 0.05$). Interestingly, mentions of...
mediation did not significantly differ across the three segments. This finding may imply that multipartner alliances can recover from conflict when certain tools (e.g., community voice, greater transparency) are used.

These findings do not make a causal claim between conflict and performance, or between participatory factors and conflict. Rather, they provide an additional insight into what mechanisms may be at play as multipartner alliances navigate conflict over time; and how alliances may recover from conflict.

CONCLUSIONS & DISCUSSION

This study provides a first-of-its kind examination of conflict in the multipartner alliance through the development of a unique empirical measure of conflict between members of the alliance and members of the alliance and external stakeholders. Past research has explored how diversity amongst partners of the alliance affects the formation, stability, and success of the multipartner alliance. Furthermore, research has hypothesized that the mechanisms underlying the diversity and performance relationship include the ability of the alliance partners to build trust, increase communication and coordination, and ultimately reduce conflict. Existing research on the multipartner alliance has so far omitted the direct and empirical link between diversity and the conflict experienced by the multipartner alliance, including conflict experienced between partners and conflict between partners and other external stakeholders. This study aims to create a direct link between the three diversity types (both separately and jointly) and conflict and begins to consider how conflict can be mitigated in these alliances.

As a baseline, this study shows that variety of functional roles increases the conflict experienced by the alliance over the life of the project. Variety of functional roles has long been
shown to have positive benefits to the performance and other outcomes of the multipartner
alliance, as partners from different backgrounds combine unique resources and knowledge (Jiang,
et al 2010). However, these differences also induce conflict as firms have differing knowledge
bases and ideas from which to tackle a problem, and in particular, approach a non-routine task
(De Dreu, et al 2003; Hambrick, et al 1996). Thus, variety of functional roles increases conflict,
though the conflict experienced may be of the productive type that ultimately helps performance.
This study does not disentangle the type of conflict experienced by the multipartner alliance (e.g.,
whether that conflict is productive or unproductive), and thus, we are unable to determine
empirically if the conflict driven by variety is of the productive type.

Furthermore, variety of functional roles may be a proxy for the complexity of a project: a
project that requires partners from different and highly varied backgrounds and knowledge
sources may be one that has technical challenges or complicated problems to solve (Li, et al
2017). Past research has used project size as a proxy for complexity as well, and in this analysis,
project size also drives conflict. Again, some of the conflict driven by project size may be
productive conflict that occurs in figuring out a novel problem or tackling a non-routine task.
Future research that links conflict to performance outcomes can help better understand the link
between variety, complexity and the type of conflict that the alliance is experiencing.

Past theory suggests that separation in institutional values drives conflict as differences in
beliefs and values creates distrust, impedes communication, and harms coordination. Though
alliances often need partners with diverse ways of operating, especially when entering or
operating in uncertain contexts (Dorobantu, et al 2019); this diversity comes at a cost. My
empirical findings do not support the hypothesis that greater separation in institutional values
generates greater conflict in the multipartner alliance. In examining this non-result, I find that the
effect of separation in institutional values is contingent on the length of the project: longer
projects experience greater conflict when there is high separation in institutional values. This
finding is consistent with organizational behavior theory that examines diversity type over time. For diversity that is “deep,” that is, diversity that is based on underlying values and beliefs, time is required for these divisions to surface (Harrison, et al, 1988). Early in the life of a group, members operate from politeness norms and experience low relationship conflict (that is, conflict from differing values and beliefs). Over time, as members get to know each other, the friction from different ways of operating and beliefs begins to surface (Jehn & Mannix, 1998). I take caution in extrapolating micro-theory to my setting; however, this relationship between separation in institutional values, time and conflict should be further explored. Those projects that require diverse institutional partners may benefit from a truncated or expedited timeline in order to reduce the unproductive conflict that may arise. Furthermore, as explored by past scholars (Haas, 2006a), the relationship between national background and group processes may differ by type of task and type of project (e.g., knowledge-intensive projects). Thus, further understanding the relationship between separation in institutional values and type of task may provide additional insight.

Though financial differences between two firms has been frequently studied, research on financial disparity in the multipartner alliance is extremely limited (Lee, et al 2018). This study shows that financial disparity—as a direct effect—increases the level of conflict experienced by the multipartner alliance. I posit that this is a result of the competition and distrust that arises due to inequity between partners (Sidanius & Pratto, 2004). However, as noted by past scholars, diversity types can have both positive and negative benefits on a group (Bertrand & Lumineau, 2016). This study shows that under conditions of separation in institutional values, financial disparity reduces the level of conflict experienced by the multipartner alliance. Financial disparity allows for the emergence of a dominant set of operating norms; thus, in instances of varied norms and beliefs, the structure and dominance brought about by financial disparity
reduces conflict.\(^{27}\)

Recent work argues that diversity type matters less than the overall level of diversity experienced by the alliance (Dorobantu, et al 2019), and as such, this study’s examination of the joint effects of diversity types is not straightforward. This argument of diversity as an aggregate measure, which is rooted in the faultlines literature (Lau & Murnighan, 1998), posits that alliances that are diverse on multiple attributes (e.g., partners from different countries, as well as partners from different functional backgrounds) experience the effects of diversity more acutely than partners that differ on fewer elements. Therefore, an aggregate construct of diversity is the necessary measure of diversity in multipartner alliances as opposed to diversity of the alliance on one attribute. In an exploration of conflict, the debate between the use of an aggregate diversity measure or a distinct diversity type becomes more complex than an exploration of other alliance outcomes such as performance or longevity. This is because there is productive and unproductive conflict, and each diversity type may have a different impact on that outcome. For example, from my empirical work, an aggregate measure of diversity would predict that conflict is heightened for those projects that are high in multiple diversity types (as the alliance has a higher overall level of diversity). However, in instances of high separation and high variety diversity, I see no effect on conflict, potentially because the type of conflict that each diversity type induces is different. Furthermore, in the condition of high disparity and high separation, I see a reversal: conflict is reduced despite a higher overall level of diversity in the alliance.

Additional empirical analyses begin to unpack the important relationship between conflict and performance. This study shows that, _ex-ante_, high-conflict projects are not anticipated to be problematic – as seen by the rating of the projects at the beginning of their life.\(^{27}\)

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\(^{27}\) I also examined the interaction between variety of functional roles and financial disparity and found no effect. Consistent with theory, financial disparity helps create a macro-culture in the presence of conflicting values and norms: there would be little reason to assume that this is important in instances of variety of functional roles.
Rather, project performance over time decreases in those projects that experience high levels of conflict and ending project performance is lower for those projects characterized by high levels of conflict. However, this study also shows that not all projects that experience conflict suffer from poor performance. Those projects that have a high-level of participatory mechanisms— that is shared decision-making and involvement of the community—appear to “recover” from conflict. These results beg a greater examination of the causal link between actions the multipartner alliance can take—for example participatory decision-making—and the ability to bounce back from conflict; as well as the link between these actions and the three types of diversity. Similarly, additional analyses could examine the capabilities partners build in navigating and resolving conflict. Though this study controls for past experience working with partners, past experience navigating conflict may be better equipped to prevent conflict or resolve conflict once it does occur.

This paper makes several contributions. First, it offers a first-of-its-kind measure of conflict to examine what drives conflict in the multipartner alliance. Academic research has devoted limited attention to examining conflict between partners in an alliance, partially as a result of the empirical challenges in measuring conflict (Lumineau, et al 2015). Through the construction of a unique measure of conflict developed through the natural language processing of 340,000 pages of project documents over 2147 alliances, this study builds on the work of management scholars such as Heidl, et al (2016), and Lumineau & Malhotra (2011) that examines conflict between partners, what drives that conflict and how it can be reduced. It also offers insight into the relationship between conflict and alliance performance, a relationship theoretically, but not empirically examined (Christofferson, 2013), as well as provides insight into the characteristics of the alliance that may prevent a negative impact of conflict on performance. As such, it adds to the small but growing body of literature on conflict resolution
and conflict prevention between organizations (Lumineau & Henderson, 2012; Malhotra & Lumineau, 2011; Lumineau & Malhotra, 2011).

Second, this study extends theory of the impact of diversity type on alliance outcomes. Past work on diversity type and outcome does not examine diversity types jointly—i.e., do not consider how one diversity type may impact another in the outcome (Bertrand & Lumineau, 2016). This study builds on the extensive research of diversity type in the multipartner alliance by examining each diversity type in turn, and in particular examining disparity diversity which has had limited attention in past work on the multipartner alliance (Lee, et al, 2018). This study refines the theory of diversity type on conflict by positing that under certain conditions diversity type may increase or decrease conflict. Though extensively explored in the organizational behavior literature, the link between diversity type and conflict has had limited exploration in the strategy field. This study examines conflict as the mechanism of the diversity—outcome relationship to develop a finer grained understanding of why diversity matters to the alliance, a relationship previously theorized but rarely empirically explored.

Lastly, given its empirical setting, this study contributes uniquely to the extensive body of work in the international development and development economics fields examining the drivers of performance in World Bank-funded projects by exploring how the firms executing the project impact conflict. Despite vast literature exploring how project and country-level variables impact projects, limited research explores the impact firms or combinations of firms have on project outcomes. This paper joins a small number of studies that seek to understand how firm characteristics impact these large projects (Malik & Stone, 2017; McLean, 2017).
TABLES & FIGURES

Figure 1: Share of Financial Revenues by Partner

Figure 2: Project Descriptions

Table 1: Descriptive Statistics and Correlation Matrix

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
<th>(9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Level of Conflict</td>
<td>0.026</td>
<td>0.094</td>
<td>0</td>
<td>1.652</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) Variety of Functional Roles</td>
<td>0.75</td>
<td>0.21</td>
<td>0</td>
<td>1.00</td>
<td>0.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>(3) Separation in Inst. Values</td>
<td>16.7</td>
<td>11.4</td>
<td>0</td>
<td>51.0</td>
<td>0.07</td>
<td>0.26</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>(4) Financial Disparity</td>
<td>0.23</td>
<td>0.17</td>
<td>0.01</td>
<td>0.99</td>
<td>0.03</td>
<td>0.05</td>
<td>-0.01</td>
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<tr>
<td>(5) Partner Experience</td>
<td>18.4</td>
<td>74.7</td>
<td>0</td>
<td>2779</td>
<td>-0.01</td>
<td>-0.01</td>
<td>0.06</td>
<td>-0.14</td>
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<tr>
<td>(6) Country Experience</td>
<td>1300</td>
<td>1320</td>
<td>0</td>
<td>2856</td>
<td>0.00</td>
<td>0.21</td>
<td>0.15</td>
<td>-0.11</td>
<td>0.11</td>
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<tr>
<td>(7) Project Size ($)</td>
<td>5.25E+07</td>
<td>1.23E+08</td>
<td>58399</td>
<td>2.01E+09</td>
<td>0.17</td>
<td>-0.06</td>
<td>0.04</td>
<td>-0.04</td>
<td>0.09</td>
<td>-0.09</td>
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<tr>
<td>(8) Project Length (Years)</td>
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<td>2.1</td>
<td>1</td>
<td>17</td>
<td>0.04</td>
<td>0.16</td>
<td>0.07</td>
<td>-0.18</td>
<td>0.06</td>
<td>0.09</td>
<td>0.19</td>
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<tr>
<td>(9) Host Country GDP / Capita</td>
<td>4345</td>
<td>3715</td>
<td>282</td>
<td>23160</td>
<td>-0.03</td>
<td>-0.06</td>
<td>-0.34</td>
<td>0.04</td>
<td>-0.05</td>
<td>-0.01</td>
<td>0.03</td>
<td>-0.01</td>
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</tr>
<tr>
<td>(10) Host Country Inst. Strength</td>
<td>35.3</td>
<td>15.4</td>
<td>0.8</td>
<td>86.1</td>
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<td>-0.05</td>
<td>-0.42</td>
<td>0.02</td>
<td>-0.09</td>
<td>-0.13</td>
<td>0.00</td>
<td>0.01</td>
<td>0.63</td>
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70
Table 2: Regression Model Predicting Conflict

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<td>Variety of Functional Roles</td>
<td>0.0202+ (1.79)</td>
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<td>0.0193+ (1.67)</td>
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<td>Separation in Institutional Values</td>
<td>1.13E-05 (0.04)</td>
<td>5.90E-04 (1.52)</td>
<td>-5.72E-05 (-0.20)</td>
<td>1.20E-03* (2.28)</td>
<td>-6.05E-04 (-1.99)</td>
<td>-0.0018* (-2.56)</td>
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<td>Financial Disparity</td>
<td>0.024+ (1.84)</td>
<td>0.055** (2.73)</td>
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<tr>
<td>Separation</td>
<td>-0.0019* (-2.02)</td>
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<td>Separation * Disparity</td>
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<tr>
<td>Partner Experience</td>
<td>-3.92E-05 (1.41)</td>
<td>-3.69E-05 (1.33)</td>
<td>-3.92E-05 (1.41)</td>
<td>-3.31E-05 (1.18)</td>
<td>-3.40E-05 (1.22)</td>
<td>-3.15E-05 (1.13)</td>
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<td>Country Experience</td>
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<td>8.01E-07 (0.41)</td>
<td>5.72E-07 (0.29)</td>
<td>4.69E-07 (0.24)</td>
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<td>1.53E-07 (0.08)</td>
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<tr>
<td>Project Size ($)</td>
<td>1.20E-10** (6.18)</td>
<td>1.21E-10** (6.23)</td>
<td>1.20E-10** (6.16)</td>
<td>1.20E-10** (6.19)</td>
<td>1.21E-10** (6.22)</td>
<td>1.21E-10** (6.23)</td>
<td>-1.34E-11 (6.39)</td>
<td>1.48E-10** (5.41)</td>
<td>1.17E-10** (5.97)</td>
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<tr>
<td>Project Length (Years)</td>
<td>0.0028* (2.28)</td>
<td>0.0026* (2.14)</td>
<td>0.0002* (2.25)</td>
<td>0.0033** (2.61)</td>
<td>0.0031* (2.44)</td>
<td>0.0031* (2.46)</td>
<td>0.0050+ (1.9)</td>
<td>0.0015 (0.51)</td>
<td>-0.0014 (-0.73)</td>
</tr>
<tr>
<td>Host Country GDP</td>
<td>2.27E-05** (2.95)</td>
<td>2.31E-05** (3.01)</td>
<td>2.27E-05** (2.94)</td>
<td>2.24E-05** (2.92)</td>
<td>1.44E-05 (0.23)</td>
<td>2.28E-05** (2.97)</td>
<td>2.25E-05** (3.6)</td>
<td>-8.34E-06 (-0.78)</td>
<td>5.85E-06 (0.09)</td>
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<td>Host Country Institutional Strength</td>
<td>-1.25E-03 (-0.49)</td>
<td>-1.49E-03 (-0.58)</td>
<td>-1.25E-03 (-0.49)</td>
<td>-1.04E-03 (-0.40)</td>
<td>-8.19E-04 (-0.26)</td>
<td>-1.27E-03 (-0.49)</td>
<td>-0.0013 (-0.60)</td>
<td>0.00334 (0.97)</td>
<td>-0.00124 (-0.40)</td>
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<tr>
<td>Year</td>
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<td>Lending Instrument</td>
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<tr>
<td>Sector</td>
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<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Country</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
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<td>Y</td>
</tr>
<tr>
<td>Lambda</td>
<td>6.26E-04 (0.2)</td>
<td>1.61E-04 (0.05)</td>
<td>5.99E-04 (0.16)</td>
<td>-6.81E-04 (-0.21)</td>
<td>-9.27E-04 (-0.26)</td>
<td>-6.86E-04 (-0.19)</td>
<td>-2.21E-03 (-0.53)</td>
<td>8.31E-04 (0.13)</td>
<td>4.68E-04 (0.13)</td>
</tr>
<tr>
<td>_cons</td>
<td>0.26+ (1.67)</td>
<td>0.28+ (1.82)</td>
<td>0.26+ (1.67)</td>
<td>0.24 (-1.56)</td>
<td>-0.032 (-1.71)</td>
<td>0.27+ (-1.71)</td>
<td>-0.092 (-1.57)</td>
<td>-0.074 (-0.63)</td>
<td>0.044 (0.24)</td>
</tr>
</tbody>
</table>

N: 2147 | 2147 | 2147 | 2147 | 2147 | 2147 | 1015 | 1132 | 2147

t statistics in parentheses
+p<0.10, *p<0.05, **p<0.01
Figure 3: Marginal Effects on Performance

[Graph showing average marginal effects of disparity on performance against separation in institutional values]

[Graph showing average marginal effects of separation in institutional values on performance against financial disparity]
**Figure 4: Project Performance Over Time**

![Project Performance Over Time Chart](image)

**Table 3: Segments of High Conflict Projects**

<table>
<thead>
<tr>
<th>All High Conflict Projects</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mediation Score</td>
<td>424</td>
<td>0.040</td>
<td>0.090</td>
<td>0.000</td>
<td>0.601</td>
</tr>
<tr>
<td>Participation Score</td>
<td>424</td>
<td>0.062</td>
<td>0.155</td>
<td>0.000</td>
<td>1.704</td>
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</table>

<table>
<thead>
<tr>
<th>Performance Stayed Same or Slight decrease</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mediation Score</td>
<td>346</td>
<td>0.039</td>
<td>0.090</td>
<td>0.000</td>
<td>0.601</td>
</tr>
<tr>
<td>Participation Score</td>
<td>346</td>
<td>0.065</td>
<td>0.165</td>
<td>0.000</td>
<td>1.704</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance Worsened</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
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</thead>
<tbody>
<tr>
<td>Mediation Score</td>
<td>66</td>
<td>0.047</td>
<td>0.095</td>
<td>0.000</td>
<td>0.415</td>
</tr>
<tr>
<td>Participation Score</td>
<td>66</td>
<td>0.045</td>
<td>0.098</td>
<td>0.000</td>
<td>0.620</td>
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</table>

<table>
<thead>
<tr>
<th>Performance Improved</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
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<th>Max</th>
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<tbody>
<tr>
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<td>0.028</td>
<td>0.058</td>
<td>0.000</td>
<td>0.182</td>
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<tr>
<td>Participation Score</td>
<td>12</td>
<td>0.046</td>
<td>0.090</td>
<td>0.000</td>
<td>0.310</td>
</tr>
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</table>
CHAPTER 2: BEING BOTH: GOVERNANCE AND UNCERTAINTY IN THE TEMPORARY PROJECT ORGANIZATION

The temporary project organization—a group of firms that comes together to execute a common goal, such as the building of a bridge or the production of a movie, then disbands at the goal’s completion—does not fit into the neat governance continuum that scholars have long used in examining organizations (Eccles, 1981). The temporary project organization utilizes elements of both market-based and hierarchical governance to ensure coordination and alignment across its multiple members, build trust, and enable the flexibility required in a context with competing goals and shifting timelines. Past work on how uncertainty drives governance choice (e.g., Santoro & McGill, 2005), and how the alignment of governance choice impacts performance (e.g., Sampson, 2004) overlooks the plural form of governance found in the temporary project organization where both elements of market and hierarchy are present. I heed the call to examine governance theories across formal-informal organization and extend our empirical understanding of the governance choice—performance link (Cuypers, Hennart, Silverman, & Ertug, 2021) to attempt to understand how the alignment between governance choice and the magnitude and type of uncertainty impacts the performance—as measured by whether the project organization successfully accomplished its objectives set out at the beginning of the project—of the temporary project organization.

As transaction cost theory highlights, in seeking to minimize transaction costs (e.g., fixed costs of contracting, which may be spread out over multiple transactions, or risk of ex post hold up) while minimizing the risks of a transaction (e.g., risk of opportunism or partner hold-up), an organization may choose to operate in as a hierarchy (e.g., vertically integrate) or use a market-based, arm-length’s relationship to transact (Williamson, 1975). Uncertainty—along with asset specificity and transaction frequency—is one of the three primary attributes on which an
organization bases this choice of governance (Lawrence & Lorsch, 1967; Gulati & Singh, 1998; Sutcliffe & Zaheer, 1998). Uncertainty is broadly categorized as either environmental—the difficulty in predicting changes and volatility in the external environment—or behavioral—the unpredictability of a relevant partner’s actions with regards to the potential for opportunistic behavior from those partners (Williamson, 1985). Environmental uncertainty increases the need to adapt to rapidly changing conditions and to collect new information, and it also increases the potential for partners to find reason to act opportunistically (Cuypers, et al 2021). For example, under conditions of technological unpredictability, a firm may choose less hierarchical governance to allow for more flexibility to adapt (Balakrishnan & Wernerfelt, 1986; Folta, 1998). Behavioral uncertainty increases the need for trust between partners, as well as to control and constrain partners, and effectively gather information to monitor partner behavior. For example, when partners have little experience working together, there may be a greater need for the control afforded by hierarchical governance (Santoro & McGill, 2005). Yet, despite a long and rich set of studies exploring how uncertainty affects governance choice, outcomes remain empirically ambiguous: Behavioral and environmental uncertainty have been shown to increase the likelihood of hierarchy, decrease the likelihood, and also have no effect (Santoro & McGill, 2005; David & Han, 2004; Macher & Richman, 2008).

Both environmental and behavioral uncertainty are particularly pronounced in the temporary project organization, also known as the interorganizational project (Bakker, 2010), ephemeral organization (Lanzerra, 1983), quasi-firm (Eceles, 1981), and transitory organization (Palisi, 1970), among other names. The temporary project organization is “inextricably interwoven” (Grabher, 2004:1492) with the environmental context in which it operates, and the success of the organization is driven by its ability to navigate an often unfamiliar and volatile institutional context (Ligthart, Oerlemans & Noorderhaven, 2016; Henisz, 2003; Fligstein & McAdam, 2011). Furthermore, the temporary project organization is comprised of numerous
partners with differing goals, objectives, and levels of experience working together, and as such, the organization’s success depends on its ability to establish norms of behavior, coordinate and communicate with partners, and manage the uncertainty from these complex partner relationships despite the absence of a unitary corporate actor (Eccles, 1981; Bechky, 2006; Sydow & Braun, 2018).

The temporary project organization exists has its own type of governance (Eccles, 1981). The classic view in organizing is that firms utilize governance along the hierarchy to market continuum to allocate and control resources (Arrow 1974, Coase, 1937; Williamson 1975, 1985). Yet, the temporary project organization, among other “second order” organizational forms (Borys & Jemison, 1989), exhibits plural governance: the temporary project organization relies on hierarchical control and coordination, market-based interactions, and additional elements such as social capital, relational governance, and other trust-based mechanisms to collaborate, and ultimately be successful (Eccles, 1981; Bechky, 2006; Sydow & Braun, 2018). Though it is generally accepted that hierarchy and market-like elements can exist “in tandem” in the temporary project organization (Young, 1989: 188), some temporary project organizations rely on greater hierarchy, with a single firm or few firms controlling most of the project resources (often referred to as a “strong owner” structure (Winch & Leiringer, 2016). This “strong owner” structure is aligned with the “order view” of the temporary project organization that posits that greater hierarchy helps with the coordination of multiple players and efficient resolution of

28 It should be noted that scholars have long acknowledged that mechanisms along the hierarchy – market continuum (e.g., licensing, joint-ventures) allow firms to navigate contexts where a pure hierarchy or pure market is not sufficient; and scholars have long-held the view that the market-hierarchy choice is not black or white. Certain markets may contain hierarchical elements and vice versa – hierarchies may contain market-like mechanisms when allocating resources (Corey 1976, 1978; Eccles 1981; Jackson 1985; Macaulay 1963; Stinchcombe and Heimer 1985; Hennart 1977, 1982). Further shades of grey occur when some market-based transactions within a firm are preferable to its internal hierarchy, as transfer prices within divisions of a firm may generate more conflict and more transaction costs than a market-based transaction (Eccles & White 1981).
decisions within the project (Van Marrewijk, Ybema, Smits, Clegg & Pitsis, 2016). Whereas other project organizations have a more equitable distribution of resources that more closely mimic market-based governance, a structure aligned with the “conflict view” of the project organization which posits that hierarchy can instigate conflict and competition, as project members vie for limited resources, and push against the partners in control (Van Marrewijk, et al 2016). Thus, there may not only be limits to fiat, but also negative consequences resulting from greater hierarchy.

Transaction cost theory presumes that organizations with aligned governance—i.e., governance type as dictated by uncertainty, asset specificity, and frequency—will have superior performance than those organizations with misaligned governance (Williamson, 1985). Thus, building on past work examining the impact of behavioral and environmental uncertainty on governance choice (e.g., Santoro & McGill, 2005), and on the plural governance of the temporary project organization (Eccles, 1981), I investigate: under what types of uncertainty does greater hierarchy versus greater market governance benefit the performance of the temporary project organization? I build on past research that seeks to predict, ex-ante, governance choice based on uncertainty type (e.g. Balakrishnan & Wernerfelt, 1986; Folta, 1998; Geyskens, Steenkamp & Kumar, 2006), by exploring the interplay between uncertainty and governance choice in the performance of the temporary project organization. I build on the work of past scholars such as Brouthers, et al (2003), Sampson, (2003, 2004), Nickerson & Silverman (2003), Anderson, Dekker & Van den Abbeele (2017), and Forbes & Lederman (2010) that looks at the cost of misalignment of a binary governance choice, and extend this work by accounting for the plural governance of the temporary project organization: I measure governance along a continuum, with some temporary project organizations exhibiting “greater hierarchy”—resources are controlled by a small group—and others exhibiting “greater market-like” governance—resources
are more equitably distributed—while acknowledging that other forms of governance remain present despite a dominant form.

Using a research context of 2319 temporary project organizations comprised of 45,883 partners operating in 135 countries from 1999 to 2016, I predict that greater hierarchy helps the performance of the temporary project organization under conditions of high environmental uncertainty. I look at performance as whether the project organization successfully accomplished its objectives set out at the beginning of the project. I look at the environmental uncertainty resulting from unknown institutional contexts (such as an unfamiliar regulatory regime), and theorize that more hierarchical governance allows the organization to better manage relationships with external stakeholders, especially in those environments where external stakeholders pose a threat to the organization’s operations; and to more easily collect, absorb, and share the knowledge that is required to navigate the unknown local context (Delios & Henisz, 2000; Luo, 2001; Xu & Shenkar, 2002). I posit that greater hierarchy helps only when the firm at the top of the hierarchy has knowledge of this local context, and as such, can share relevant information and knowledge to other partners in order to navigate the uncertain context.

I also predict that under conditions of behavioral uncertainty, the relationship between hierarchical governance and performance depends on the type of project, as some projects require more control and partner monitoring (Ulset, 1996; Eramilli & Rao, 1993). I theorize that for projects where key performance indicators are often set at the outset of the project and industry-wide norms help dictate behavior, hierarchical governance harms performance under conditions of behavioral uncertainty. For these temporary project organizations, greater hierarchy may impede the trust-building required for navigating new partners (Lumineau & Malhotra, 2011; Krishnan, Martin & Noorderhaven, 2006), and generate conflict and competition between partners (Van Marrewijk, et al 2016), ultimately harming performance.
This study heeds the call to both push the bounds of transaction cost theory to better understand hybrid organizational forms (Eccles, 1981; Bakker, DeFillippi, Schwab & Sydow, 2016); and to better understand the link between governance choice and performance, especially performance that goes beyond profitability (Cuypers, et al 2021). Furthermore, despite its importance and prevalence across many industries, the governance of the temporary project organization is not well-explored in the management literature (with the notable exceptions of Bechky (2006), Majchrzak, Jarvenpaa, & Hollingshead (2007), and Schwab & Miner (2008)). This study builds on this limited but rich work to shed further light on what factors drive success in the temporary project organization and provides a unique contribution on the interplay between uncertainty, governance and performance in these hybrid forms. In the closing of this paper, I will elaborate on these specific contributions and avenues for future research on this topic.

THEORY & HYPOTHESES

The temporary project organization can be defined “as a set of organizational actors working together on a complex task over a limited period of time” (Bakker 2010:468). The temporary project organization acts like a singular firm in many ways while in operation, but differs from a unitary firm in ways that matter for governance, communication, coordination, and incentives, among other critical aspects. Thus, temporary project organizations have been called quasi-firms (Eccles, 1981), temporary systems (Meyerson, Weick & Kramer, 1996), synthetic organizations (Thompson, 1967), ephemeral organizations (Lanzerra, 1983); project-based enterprises (DeFillippi & Arthur, 1998), interorganizational project networks (Oliveira & Lumineau, 2017), and single-project organizations (Faulkner & Anderson, 1987; Baker & Faulkner, 1991), among other terms, in order to describe how these organizations exist and their impermanence. Despite increasing prevalence of this organizational form across a number of industries including biotech (Hoang & Rothaermel, 2005) construction (Eccles, 1981; Swärd, 2021).
2016), film-making (Bechky 2006), emergency response (Majchrzak, Jarvenpaa, & Hollingshead, 2007), and finance (Dorobantu, Lindner & Müllner, 2019), limited recent research, especially quantitative research, exists in the strategy and management field on the governance of temporary project organizations. Despite these limitations, there is consensus across fields about the managerial challenge of temporary project organizations: These organizational forms are complex, critical, difficult to manage and often result in underperformance and outright failure (Flyvbjerg, Bruzelius & Rothengatter, 2003; Scott et al., 2011).

The temporary project organization differs from other types of interorganizational relationships—such as the relationship between a supplier and buyer, between alliance partners, or between members of a joint-venture—in critical ways (Bakker, et al 2016). First, the temporary project organization is time-bound: unlike a permanent organizational form, the temporary project organization has an ex-ante expectation of termination (Lundin & Söderholm, 1995). As such, the ability of partners to have repeated interactions may be limited; and there may be greater likelihood for opportunism given the terminality of the project (Swärd, 2016). Furthermore, the temporary project organization relies on interdependence of partners working together to achieve the project objective, with partners representing their permanent organizations’ cultures, expectations and goals. Despite this interdependence and need for close coordination, the partners working together often do not have formal contracts with each other.

Given these unique characteristics, the temporary project organization does not neatly fit into the transaction-cost continuum but rather exhibits plural governance. The temporary project

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29 There is a rich and extensive body of research of this organizational form in the project management and construction fields (see Sydow & Braun, 2017; Bakker, 2010 for reviews).

30 In the project management literature, the temporary project organization is distinguished from other organizational forms by four characteristics—time, team, task, and context (Bakker, 2010). These characteristics—describe how temporary project organizations differ from other permanent organizational forms and have long provided the theoretical foundation from which project organization research builds on (Lundin & Söderholm, 1995; Sydow & Braun, 2018).
organization lacks a formal hierarchy and a unifying center of control but relies on informal hierarchy as well as market-like governance, and on informal relationships, trust building, and social capital to be successful (Eccles, 1981; Clegg, Pitsis, Rura-Polley & Marosszéky, 2002; Bechky, 2006; Scott, Levitt & Orr, 2011; Sydow & Braun, 2018;). Though multiple types of governance exist “in tandem” in the temporary project organization (Young, 1989: 188), there remains an open question as to the extent of hierarchy that is beneficial for the temporary project organization. The “order view” of the organization emphasizes that more hierarchy helps with the coordination of multiple players and efficient resolution of decisions within the project (Van Marrewijk, Ybema, Smits, Clegg & Pitsis, 2016). As such, some temporary project organizations operate with a “strong owner,” a firm or firms that control the majority of the project resources (Winch & Leiringer, 2016). Yet, in the “conflict view” of the organization, hierarchy can instigate conflict and competition, as project members vie for limited resources, and push against the partners in control (Van Marrewijk, et al 2016). Thus, there may not only be limits to fiat, and but also negative consequences resulting from hierarchy. This conflict-view is aligned to social dominance theory, which posits that unequal allocation of resources within groups harms trust, increases conflict, and impedes communication (Sidanius & Pratto 2004). The temporary project organization relies heavily on social capital and trust to be successful, which may be jeopardized by this conflict and competition. I acknowledge that past views of the temporary project organization develop an incomplete picture of what may drive the temporary project organization from leaning on more hierarchical governance versus more market-like governance. Aligning with transaction cost research, I do not try to prove if one type is better than the other, but rather, I examine the contingent effects of uncertainty on governance in the temporary project organization: Under what type and magnitude of uncertainty does the project organization benefit from more hierarchy or more market-like governance?
Uncertainty and Governance

Thompson (1967:159) states that “uncertainty appears as the fundamental problem for complex organizations,” and interorganizational relationships often fail as a result of the challenges posed by uncertainty (Krishnan, Geyskens & Steenkamp, 2016). Uncertainty drives decisions about governance choice, as organizations attempt to minimize the problems of transaction costs and opportunism that arise because of it (Williamson, 1985). Using the transaction cost lens, scholars have long explored how types of uncertainty drive governance decisions (e.g., Santoro & McGill, 2005), the interplay of uncertainty and asset specificity (e.g., Weber & Mayer, 2014), how uncertainty and trust interact (e.g., Krishnan, Martin & Noorderhaven, 2006), and how uncertainty impacts acquisitions and divestitures (e.g., Bergh & Lawless, 1998). Despite its extensive study, the effect of uncertainty on governance choice is mixed (see Krishnan, et al (2016) for a review of this literature).

Uncertainty is broadly categorized as either environmental or behavioral (Williamson, 1985). Environmental uncertainty, also referred to as primary uncertainty (Sutcliffe & Zaheer, 1998), is the difficulty in predicting changes and volatility in the external environment. Behavioral uncertainty, or secondary uncertainty, is the unpredictability of a relevant partner’s actions with regards to the potential for opportunistic behavior from those partners (Williamson, 1985).

I start by examining environmental uncertainty. Environmental uncertainty can result from regulatory changes or government intervention (Sutcliffe & Zaheer, 1998; Henisz & Delios, 2004); technological changes in the industry (Mitchell, 1988); or changes to the product market (Wholey & Brittain, 1989). Environmental uncertainty reflects a lack of knowledge or understanding about the “states of nature” (Sutcliffe & Zaheer, 1998), and as such, Williamson (1985:57) calls this uncertainty “innocent” as it is outside of the sphere of the organization. However, the organization is not fully without agency to manage environmental uncertainty.
Environmental uncertainty is further classified as endogenous—the uncertainty can be reduced by the actions of the firm, and exogeneous—the uncertainty is not affected by actions of the firm and is resolved over time (Folta, 2003).

For the temporary project organization, environmental uncertainty is particular salient: the temporary project organization is “inextricably interwoven” (Grabher, 2004:1492) with the environmental context in which it operates, and the success of the organization is driven by its ability to navigate an often unfamiliar and volatile institutional context (Ligthart, et al 2016; Henisz, 2003; Fligstein & McAdam, 2011). It should be noted that different types of environmental uncertainty can elicit opposite organizational outcomes and behaviors. Given the purpose of the temporary project organization to execute on a pre-determined task and disband once that task is over, I focus on the risk of environmental uncertainty that results from unpredictable regulatory changes, an uncertain institutional context, or responses by local stakeholders as opposed to the risk of a change in the competitive landscape or technology (Orr & Scott, 2008).31

Temporary project organizations facing environmental uncertainty contend with two critical dimensions: 1) the ability to manage external stakeholders, especially in those environments where external stakeholders pose a threat to the organization’s operations; and 2) the collection, absorption and sharing of the knowledge and capabilities required to navigate the unknown local context (Luo, 2001; Xu & Shenkar, 2002).32

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31 For example, volatility in a product market, or rapid shifts in technology in the industry, require an organization to pivot, make discretionary investments, and in general, not be constrained to respond to the competition at hand (Kogut, 1991; Folta, 1998). When accounting for the need for flexibility, environmental uncertainty predicts a less hierarchical governance form for the organization (Santoro & McGill, 2005, Balakrishnan & Wernerfelt, 1986; Folta, 1998).

32 Past scholars have explored environmental uncertainty in areas of poor regulatory quality or weak institutions (Krishnan, et al 2016). However, aligning with substantive and long-standing scholarship in the international business field and as summarized in the transaction cost lens (Cuypers, et al 2021); poor regulatory or institutional quality may not be a disadvantage for an organization if the organization itself is from a similar home country context. Thus, in measuring environmental uncertainty, I look at relative distance of institutional values, as opposed to absolute institutional quality when measuring uncertainty.
The first dimension that an organization must contend with under conditions of high environmental uncertainty is the ability to manage external stakeholders, especially in those environments where external stakeholders pose a considerable risk (see Henisz, 2016). For example, the temporary project organization that comes together to build a mine must negotiate with multiple political actors, secure permits, liaise with the local community and manage the risk of expropriation or reallocation of funds by the government. The project organization that comes together in response to a health crisis (e.g., Majchrzak et al, 2007) must work with local community leaders, health centers, and government bodies, while navigating the healthcare regulatory environment in which it operates. Building on a rich set of studies in international development and other fields (e.g., Arnstein 1969; Choguill, 1996), management researchers have begun to investigate not only why effective coordination with and acceptance by external parties is important for an organization, but also how it can be achieved (see Clegg, et al, 2002; Henisz, Dorobantu & Narrey, 2013). Many of these strategies focus on creating shared values, objectives, and a sense of social closeness and cohesion between the external stakeholders and the organization. Shared values, norms, and operating expectations with external stakeholders can increase trust and ease communication between groups, resulting in reduced conflict and more successful outcomes.

Second, environmental uncertainty requires an organization to process new information about the environment, especially when there is a lack of familiarity in the way of operating in an unknown context. Organizations in uncertain contexts contend with unfamiliarity hazards and information asymmetries, which increase the amount of resources the organization must expend in order to navigate the environment (Mahoney, 1992; Meyer, 2001; Tong, Reur & Peng, 2008). In particular, organizations must overcome a “liability of foreignness” that results from a lack of knowledge of the local context and way of doing business in this context (Zaheer, 1995). Furthermore, knowledge gathering can be problematic in ambiguous environments (Haas,
and high environmental uncertainty can bring about a significant information overload, as an organization attempts to absorb and synthesize input from the environment and determines how to respond to that information (Krishnan, et al 2016).

Thus, environmental uncertainty requires the temporary project organization to process new information about the environment and share that information across the organization in a timely manner in order to make decisions about how to respond to the unknown and unpredictable context (Huber, Miller & Glick, 1990). It requires the partners of the temporary project organization to coordinate and share knowledge and determine how to respond to external stakeholders. Addressing this potential for coordination failures and communication challenges across partners becomes even more important in the context of the temporary project organization, as an increase in number of partners increases the difficulties of coordination and the likelihood of conflict (Lavie, Lechner, & Singh, 2007).

In line with past scholars exploring more traditional governance forms (John & Weitz, 1988), greater hierarchy in the temporary project organization helps address environmental uncertainty in two primary ways: it supports coordination and information sharing amongst partners; and it allows the temporary project organization to quickly respond to decisions and resolve potential disputes that arise when navigating external stakeholders. As previously discussed, hierarchy enables communication and provides a sense of structure and predictability in a group (Kiesler, 1983; Tiedens & Fragale, 2003). As extolled by the “order view” of the project organization (Van Marrewijk, et al 2016), hierarchy allows the partner or partners with control to make clear (and enforce) expectations and a way of operating (Das & Teng 1998, 2001; Bunderson & Boumgarden, 2010; Bunderson & Reagans 2010). As such, a clear set of expectations and a macro-culture allows for ease of coordination and communication across partners (Jones, Hesterly, & Borgatti, 1997).
Conflict may arise as partners seek to determine the best course of action for addressing external stakeholders and determining how to operate and react in an uncertain environment. Furthermore, as previously discussed in the “conflict view” of the organization, greater hierarchy may exacerbate these conflicts as partners compete for resources and push against the partners in power. However, disputes can be resolved more quickly given that a central entity that can manage all parties’ interests and make decisions by fiat (Williamson 1975). When a partner holds a concentration of resources, it can more easily act at will, and is better at ignoring irrelevant information (Guinote, 2007). Thus, in managing the conflict that results from needing to determine the best course of action in an uncertain environment, hierarchy allows the dominant partner to operate with fewer constraints, resulting in quicker decisions and more cost-effective resolution of conflict (Lumineau & Malhotra, 2014). For example, Forbes & Lederman (2010) found that on days of high environmental uncertainty (adverse weather conditions), airlines benefited from hierarchical governance, as it allowed them to make real-time, non-contracted decisions to adapt to the situation at hand.

Greater hierarchy allows for the “strong owner” in the temporary project organization to act with fewer constraints, make efficient decisions (Winch & Leiringer, 2016), and establish a macro-culture and “common dominant frame” (Weber & Mayer, 2014). In situations of high environmental uncertainty, this greater hierarchy enables the temporary project organization to coordinate external stakeholders and efficiently gather and share information about the uncertain environmental context. The presence of a central actor who can effectively win the hearts and minds of stakeholders (a “corporate diplomat”) within the local environment is seen to be important for managing stakeholder relationships and operating in an uncertain context (Henisz, 2016). Yet, the central actor at the top of the hierarchy in the temporary project organization runs the risk of imposing the wrong set of operating norms or behaviors that conflict with the operating norms of the stakeholders of the external environment. Furthermore, as a strong owner
may ignore information it deems irrelevant (Guinote, 2007) or fail to take the perspective of the other partners (Galinsky, Magee, Inesi & Gruenfeld, 2006) and as such, there is a risk that the firm does not absorb or share the right type of information with its partners. It matters what information is shared and what norms are established in order to address environmental uncertainty. Therefore, I predict that greater hierarchy helps the performance of the temporary project organization under of high environmental uncertainty, but only when the partner at the top of the hierarchy has knowledge about the local context.

**Hypothesis 1:** Under conditions of high environmental uncertainty, greater hierarchy helps the performance of the temporary project organization, but only when the lead partner has knowledge of the local context.

The second type of uncertainty, behavioral uncertainty, pertains to anticipating and understanding how partners will act in an exchange (Krishnan, Martin, & Noordehaven, 2006). Under conditions of high behavioral uncertainty, which is also called secondary uncertainty, an organization lacks knowledge about its partners and has difficulty predicting their actions (Sutcliffe & Zaheer, 1998). Thus, under conditions of behavioral uncertainty, an organization works to manage the risk of partners disguising or distorting information or behaving in an opportunistic way (Williamson, 1985). Because monitoring and evaluating partner behavior is needed to manage behavioral uncertainty, behavioral uncertainty is often high in R&D-intensive industries because of the difficulty in evaluating intellectual activities (Ulset, 1996); in service industries because of the lack of separation between production and consumption (Eramilli & Rao, 1993); and when partners’ tasks are highly interdependent or the partners are also competitors (Khanna et al., 1998; Oxley & Sampson, 2004). In particular, I examine behavioral uncertainty that results from the unpredictability of a partner’s actions (as opposed to, for example, task uncertainty or strategic uncertainty, which refer to the activities performed within a partnership) (Casciaro, 2003).
The temporary project organization contends with inherent behavioral uncertainty: because partners disband at the end of the project, partners may have a limited “shadow of the future” – the likelihood that they will work together again, an important phenomenon for limiting opportunistic behavior (Heide & Miner, 1992; Lighthart, et al 2016). Furthermore, partners in the temporary project organization often do not have contracts with each other (but rather with a central body); therefore, the opportunity for partner uncertainty is high as there are limited formal mechanisms for control or coordination amongst partners. Additionally, the temporary project organization contends with numerous partners from different industries, home country backgrounds, and levels of experience working together. These differences impact behavioral uncertainty, as differences, for examples, distance between cultural attributes, make it harder to understand and predict partner behavior (Anderson & Gatignon, 1986; Maseland, Dow, & Steel, 2018). I examine the partner uncertainty that results from having limited experience working with the other partners on the temporary project organization. As partners gain experience working together, they begin to better understand and predict partner behavior and partner uncertainty decreases (Santoro & McGill, 2005).

The impact of hierarchical governance on performance under conditions of high behavioral uncertainty is not straightforward and past empirical studies highlight this lack of consensus (David & Han, 2004). On one hand, under high behavioral uncertainty, hierarchical governance helps control and constrain partner behavior, thus limiting the potential for opportunistic actions from partners (Santoro & McGill, 2005). On the other hand, hierarchical governance may harm the potential for unknown partners to build trust with each other, an important mechanism for ensuring that partners will not act in a way that is harmful to each other (McEvily, Perrone, & Zaheer, 2003).

More hierarchical governance can help manage behavioral uncertainty in the temporary project organization because it allows for the establishment of a dominant set of operating norms,
structure, and predictability that can control partner behavior (Kiesler, 1983; Tiedens & Fragale, 2003). When an individual or group has dominance over others, they can influence (whether directly or indirectly) the overall behavior of the group by making more explicit norms and expectations of operating (Das & Teng 1998, 2001; Bunderson & Boumgarden, 2010; Bunderson & Reagans 2010). These informal control mechanisms constrain behavior, as partners work within a set of operating parameters and deviance from these sets of established behaviors is easily visible. As such, hierarchy can mitigate schisms amongst partners, as the central partner can impose (and enforce) a clear set of objectives and expectations from which the group is expected to follow (Heidl, Steensma & Phelps, 2014; Lumineau & Malhotra, 2011).

Yet, hierarchy can also harm the trust-building required to manage partner uncertainty. Hierarchy can instigate conflict and competition as project members vie for limited resources, and push against the partners in control (Van Marrewijk, et al 2016). Control can reduce trust (Lumineau & Malhotra, 2011), and harm communication flows (Sidanius & Pratto, 2004). Conversely, trust reduces the need for costly monitoring of partners (Santoro & McGill, 2005); and encourages partners to assume each other’s behaviors are not meant to be detrimental to the group (McEvily, et al 2003). Trust allows for easier sharing of information amongst each other (Dyer & Chu, 2003) and allows the partners to focus on improving performance of the project as opposed to monitoring each other’s behavior to thwart malfeasance (McEvily, et al 2003). In fact, some scholars argue that in the face of high behavioral uncertainty, organizations should focus on building trust amongst partners, as more formal structures are not effective, and at times, detrimental to the partnership (Krishnan, et al 2016).

Behavioral uncertainty, and how to manage it, varies based on the nature of the work undertaken by the partnership (i.e., the attributes of the partnership). In certain sectors, monitoring partner behavior is more difficult given the type of work. For example, in the R&D sector, intellectual activity of partners is difficult to monitor (Ulset, 1996). It may be easier for
partners to distort or disguise information given the ambiguous nature of that information. Projects that involve clearly defined tasks and have limited room or need for creativity, partners may find it easier to monitor partners and access information about partner behavior. For example, projects in the infrastructure sector have clearly defined key performance indicators, with the most common milestones being on-time and on-budget (Toor & Ogunlana, 2010). Progress is visible (e.g., was the foundation laid, were the parts delivered) so it is more challenging for partners to hide or make ambiguous information about their behaviors. And, industry norms and regulations provide additional mechanisms for control and coordination of partner activity (Swärd, 2016). Furthermore, in these projects, overall success is dependent on the partners being able to quickly build collaborative commitment, transparency, and a strong project culture (Clegg, et al 2002), and the presence of trust has been found to be a major driver of the total cost of the projects in the infrastructure space (Zaghoul & Hartman, 2003). Thus, in projects where control is accomplished through established key performance indicators and external regulations, and the ability of the partners to quickly build trust is paramount to success, I predict greater hierarchy harms the performance of the temporary project organization under condition of high behavioral uncertainty, as hierarchy harms the ability of the organization to build trust amongst partners, and creates competition and unproductive conflict (Van Marrewijk, et al, 2016).

**Hypothesis 2:** At high levels of behavioral uncertainty, greater hierarchy negatively affects the performance of the temporary project organization for those projects that have industry-wide norms and key performance indicators.

**METHODS & SETTING**

The setting for this study is the set of all World Bank-funded projects that began and ended between 1999 and 2016. The World Bank provides funding, in the form of long-term
concessionary loans to countries for projects that will impact the economic and social development of a particular country or region. The Bank supports in the identification, preparation, monitoring, and evaluation of these projects in collaboration with the host countries.33 Private companies, individuals, and NGOs are contracted to each project by the borrowing country sponsor and comprise the temporary project organization that executes the project. The partners that comprise the projects are selected through a variety of procurement methods (e.g., international competitive bidding, national competitive bidding, etc.).

This setting is attractive for many reasons. The primary reason is that these temporary project organizations do not appear to be fundamentally different from other large global projects not funded by the World Bank. Often, these World Bank-funded projects are partially funded by other private or multilateral sources. Multiple funding sources are common on large global projects, including funding from a mix of public and private sources. Second, the projects of this dataset span countries and industries, providing a rich variance of environmental contexts. Further, the companies executing these projects span a variety of home countries, levels of prior experience, and experience with local partners, as discussed below. These companies also execute on temporary project organizations not funded by the World Bank. Finally, while there is a great deal of research exploring drivers of project outcomes using the World Bank Project Database and IEG Performance Database (see Dollar & Levin, 2005; Isham & Kaufmann 1999; Kilby, 2000) there has been little consideration of the firm-level effects on project-level outcomes (with the notable exceptions of Malik & Stone (2017) and McLean (2017)). Thus, this research fills an empirical gap in the international aid and development literature by extending the existing

33 The World Bank refers to host countries as “borrowing countries,” but for the purposes of this study I follow nomenclature used in international business research and refer to the country where the project takes place as the “host country.”
analyses to include the effect of the contractors who execute these large-scale development projects.

The datasource is comprised of three existing datasets: the World Bank Project Database, the World Bank Contractor Database and the IEG Performance Database. The data are organized with one observation for each new contracting relationship (i.e., firm, individual or NGO) entered to support a World Bank project. In all, there were 157,180 contracting relationships introduced between 1999 and 2016 across 5864 projects (the Contractor Database started collecting data in 1999). From this dataset, I combined contract observations (and summed contract amounts) to ensure that for each unique project there were not multiple observations with the same partner, resulting in a dataset of 102,203 contracting relationships. Given that the theoretical test of these data is of hierarchy and governance, it was important to capture all of the resources that a single partner owned on a given project. Of those, 43,958 contracting relationships were not associated with a specific project, did not include a performance outcome, or were associated with projects that started before 1999, leaving 58,245 contracting relationships across 2,592 projects. I dropped 119 projects that took place at the regional level (e.g., spanned countries), given that the theoretical test of environmental uncertainty is measured at the country level. Finally, from the dataset of 2473 projects and 55,473 contractors, I dropped those projects (137) that have only one contracting relationship. Given that the study is of the behavior of partners within the project, I tested the model on projects with two or more contracts. The model was thus tested on a dataset containing 55,370 contracting relationships undertaken by 45,883 unique contractors, across 2319 projects.

As additional robustness checks, models were tested excluding two party project organizations, as well as excluding those contracting relationships that were beneath certain thresholds (e.g., 5% of contract, 1% of contract, and 0.1% of contract).
These 2319 projects took place across 135 countries, with China hosting the most projects at 134, and Brazil hosting the second greatest number of projects at 76. Given that the projects are partially funded by the World Bank, all of the projects take place in developing countries, with the average GDP per Capita across all countries at $4,344, with the maximum GDP per capita at $23,159. The 45,883 partners executing these projects are from 168 different home countries. Partners from China (4,290), India (2,384), Vietnam (2,274) and the United States (1,968) are most represented in the set of partners. The average size of a project $50,700,000 and the average contract size is $21,200,000.

**Dependent Variable**

The emphasis of this study is temporary project organization outcome, specifically, a measure of the performance of the project in achieving its stated objectives. Following prior research (Denizer, Kauffman & Kraay, 2011; Limodio 2011), I use the IEG Outcome variable as a measure of project performance. The World Bank Independent Evaluation Group (IEG) provides a subjective assessment of the extent to which a project met its stated “development objective.” The variable (Outcome) ranges from 1, for those projects that were rated highly unsatisfactory to 6 for those projects that were rated highly satisfactory in meeting their development objectives.\(^{35}\) The IEG Project Outcome variable is close to a normal distribution, with a mean of 3.95 and a standard deviation of 1.00. The World Bank Independent Evaluation Group aims to be impartial and separate from the assessments made by other members of the

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\(^{35}\) IEG Rating Scale: 6 - Highly Satisfactory There were no shortcomings in the operation’s achievement of its objectives, in its efficiency, or in its relevance; 5 - Satisfactory There were minor shortcomings in the operation’s achievement of its objectives, in its efficiency, or in its relevance; 4 - Moderately Satisfactory There were moderate shortcomings in the operation’s achievement of its objectives, in its efficiency, or in its relevance; 3 - Moderately Unsatisfactory There were significant shortcomings in the operation’s achievement of its objectives, in its efficiency, or in its relevance; 2 - Unsatisfactory There were major shortcomings in the operation’s achievement of its objectives, in its efficiency, or in its relevance. 1- Highly Unsatisfactory There were severe shortcomings in the operation’s achievement of its objectives, in its efficiency, or in its relevance. *World Bank, Independent Evaluation Group*
bank (e.g., the project manager) to ensure that outcomes are not inflated or distorted by those with vested interested in the project. The IEG Project Outcome variable has long been used across a range of studies in exploring project performance and has been extensively reviewed as to its own credibility and lack of bias in accurately assessing project performance (see Denizer, et al 2011 for an extensive review). Thus, I believe it is a strong reflection of the performance of the temporary project organization.36

**Independent Variables**

*Hierarchy:* Hierarchy impacts efficiency, coordination, conflict resolution between organizations and individuals operating at the boundaries of those organizations (Williamson, 1975, Bae & Gargiulo, 2004; Bleeke & Ernst, 1991; Blodgett 1992). In project management research, the “strong owner” is the firm or firms that control the majority of the financial resources of the project and can act with fewer constraints, and make efficient decisions (Winch & Leiringer, 2016).

To capture the extent of hierarchy in the temporary project organization, I use a measure of a Herfindahl Index Score for each temporary project organization, a measure most often used to measure the concentration of industries as determined by market shares of firms. The Herfindahl Index measures the concentration ratio, so it gives more weight to larger partners and takes into account the number of partners in the temporary project organization. For each temporary project organization, I compute a Herfindahl Index (*Hierarchy*) score using $\sum_{i=1}^{N} s_i^2$ where $s_i$ is the ratio of contract amount for partner $i$ over total amount across all partners and $N$ is

36 I ran robustness checks using a binary outcome variable (0/1) and an additional project outcome variable that measures “the risk that expected project outcomes will not be maintained”. For the binary outcome variable and the additional risk outcome variable, the results were not robust to conventional significance levels, though the size and sign of estimates were consistent with the primary analyses.
the number of partners on the project. The Herfindahl Index ranges from $1/N$ to 1, where values closest to 1 represent greater hierarchy (greater concentration of resources).

*Environmental Uncertainty:* Environmental uncertainty is measured by the distance between the partners of the temporary project organization institutional contexts and the institutional context of the country in which the project is taking place. Differences in the institutional context across countries, in particular differences in the regulatory environment impact organizational behavior, including choice of countries, partners, and entry modes (Eden & Miller 2004; Henisz 2000; Jensen & Szulanski, 2004; Kostova & Zaheer 1999; Xu & Shenkar 2002; Perkins, 2014). Poor institutional quality has been previously used as a measure of environmental uncertainty (Krishnan, et al 2016). However, as opposed to the absolute strength or weakness of the institutional environment as a measure of environmental uncertainty, I measure the relative distance between the institutional environment of the host country context and of the partners’ home country contexts, an approach long used in the international business field (Ghemawat, 2007) and recently in the transaction cost field (Beugelsdijk et al., 2018). This is because temporary project organizations that are comprised of partners from similar institutional contexts as the environment in which they are operating (even if that environment has a weak institutional context) may experience less uncertainty than a temporary project organization whose members have institutional contexts that are very different from the host country context.

Institutional distance is a multi-dimensional and time variant measure that goes beyond the historic measures of cross-cultural distance (Berry, Guillen & Zhou 2010). A company’s home institutional environment is important because it shapes its values, norms, and a way of operating (Kostova, 1999). And, scholars have long shown that firms represent the values and norms determined in their home country (Hennart & Zeng, 2002; Park & Ungson, 1997; Parkhe, 1991) and that home country characteristics influences firms’ perceptions of and behaviors towards each other (Ertug, Cuypers, Noorderhaven & Bensaou, 2013).
Following prior research by Lavie & Miller (2008), these institutional differences can be measured by the World Governance Indicators (WGI), a set of six factors that measure country differences across administrative and political national environments. The World Governance Indicators rate countries on a scale of 0-100 on the following six factors: voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law, and control of corruption. For each host country (country where the project takes place) I average the six factors between the year 1999-2016 to get an aggregate WGI score. I compute the distance using the absolute between the host country’s average WGI score and the WGI score for each individual partner on the project. I compute an overall score (Environmental Uncertainty) for the project organization by taking the average of the difference between the host country and each partner.

**Lead Partner with Local Knowledge:** The lead partner is defined as the partner with the greatest share of financial resources on the project. To determine if the lead partner has knowledge of the local context, I generated a dummy variable that took the value of 0 when the absolute value of the difference between the lead contractor’s average WGI score and the host country’s WGI score was less than or equal to the difference between the average WGI score of the temporary project organization and the host country.

**Behavioral Uncertainty:** A stable pool of partners in the temporary project organization allows for more repeated interactions and an increased ability to understand partner behavior and build trust (Doney & Cannon, 1997; Gulati & Sytch, 2008; Poppo, 2008). Temporary project organizations that have a greater percentage of partners starting at the beginning of the project – and thus, have more time to work together on the project – have a greater opportunity to build trust. This measure of time starting together is of particular importance in the temporary project organization because partners on these projects often have limited time together (Nordqvist et al., 2004), and the influence of partners is highest in the early phases of the project (Kolltveit &
As partners gain experience working together, behavioral uncertainty decreases (Santoro & McGill, 2005), as experience working together generates trust, and scholars have long extolled the benefits of mutual trust as a way to ensure that partners will not act in a way harmful to each other (McEvily, Perrone, & Zaheer, 2003). When partners have more time working together on the temporary project organization, partners may assume each other’s behaviors are not meant to be detrimental to the group (McEvily, et al 2003) and allows for easier sharing of information amongst each other (Dyer & Chu, 2003). I measure the extent of behavioral uncertainty as the percentage of partners who started early in the life of the temporary project organization, where early is measured as starting in the first half of the project.\footnote{This measurement is not weighted by size of the contracts (i.e., giving more weight to larger contracts). In this dataset, the largest contractors on a project typically start earlier in the life of the project.} I subtract this number from one to develop a measure of uncertainty (Behavioral Uncertainty), such that high uncertainty (fewer partners start early in the project) is closer to one, and low uncertainty (most contractors start early in the life of the project) is closer to zero. Temporary project organizations that have a greater percentage of partners starting at the beginning of the project – and thus, have more time to work together on the project – have a greater opportunity to build trust and decrease behavioral uncertainty.

**Sector:** Projects that have ex-ante key performance indicators, clear industry norms and regulations to shape behavior, and visible signs of progress may not need to monitor partner behavior as closely. In the infrastructure sector, key performance indicators are critical and almost universally defined as the project being on-time, on-budget, on-scope (Toor & Ogunlana, 2010; Flyvberg, 2017), and industry-wide norms help dictate and shape behavior of partners (Swärd, 2016). The World Bank classifies projects under eleven sectors. Sectors *Water, Energy*
& Mining, Information & Communication, and Transportation are classified as infrastructure projects per the Bank’s definition.38

Interactions: The interaction between Hierarchy, Behavioral Uncertainty, and Environmental Uncertainty was operationalized through interaction terms: (Hierarchy * Environmental; Hierarchy * Behavioral).

Other Independent Variables: Following Denizer, et al (2011), and others, additional project level variables also significantly impact the performance of projects. To account for these, I control for project complexity as measured by the size of the project in dollars (Project Size).39 I control for the effects of sector differences by using a dummy variable for project sector (Sector), as well as annual differences with a dummy variable for the year that the project was approved (Year) consistent with past research (Denizer, et al 2011). Lastly, given that financing from the World Bank comes in different forms, I account for lending instrument (Lending Instrument) consistent with past research (Kilby & Michaelowa, 2018), as well as procurement type (Procurement Type) which I control for in the first stage model to account for the selection criteria of the partners in the temporary project organization.40

An extensive body of work demonstrates the importance of host country-level characteristics on project outcomes. Differences in country economic strength, institutional strength, policies, and infrastructure have all been shown to significantly impact the performance

39 Additionally, I ran robustness checks where I did not include contractors that comprised less than 1% of project revenues. This reduced the number of contractors in the overall dataset from 54,508 contracting relationships to 28,226 contracting relationships and reduced the average number of contractors on a project from 23 to 12 (with a max of 48 contractors). I include results in primary regression table.
40 There are 13 different lending instruments that the World Bank deploys, depending on timing, project needs, and the borrowing agency. The most common instrument (1,460 projects) is the specific investment loan (SIL). Other instruments include technical assistance loans, financial intermediary loans, and emergency recovery loans. There are seven different financing types, which indicate the funding source of the loan, with the majority of types either funded by the IBRD or IDA. (World Bank Lending Instruments: Resources for Development Impact, 2001)
of these projects. Following Dollar & Levin (2011) and Denizer, et al (2011), I control for the strength of the host country economy with a measure of GDP per capita averaged over the years of the dataset (Host Country Economic Strength), as well as the volatility of the host country economy with a measure of the natural log of the inflation rate (Host Country Economic Volatility). I also control for the institutional stability of the host country with a measure of the average WGI score of the host country (Host Country Institutional Strength), and control for other country-level effects through the use of country fixed effects (Country).

Selection

A key consideration in exploring governance choice and performance is the inherent selection bias present: Managers choose a governance structure in response to observed and unobserved characteristics that are also likely to affect the performance of the organization (Brouthers, Brouthers & Werner, 2003). Past scholarship has typically accounted for selection through the use of a two-stage model estimating the probability of one governance choice over another in the first stage; then predicting performance in the second stage that uses a correction variable (e.g., Sampson, 2004; 2005; Brouthers, et al 2003). However, the theoretical question of interest in this research is the extent of a market-like or hierarchy-like governance along a continuum chosen by the temporary project organization; therefore the standard models predicting a binary choice (e.g., choice of equity-based contract versus pooling contract) in the first stage are not appropriate.

To account for a continuous dependent variable in the first stage of the model, I follow Wooldridge (2015) and deploy a control function (CF) method to estimate lambda, the correction variable. In the CF method, lambda is the reduced form residuals of y2 in the first stage of the

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41 There are broadly two approaches to account for selection when determining misalignment. Both approaches use a two-stage model, with the first approach (e.g., Masten et al, 1991) measuring transaction costs, and the second approach (e.g., Sampson, 2004) developing a measure of misalignment.
model, where $y_1$ is the response (performance of the temporary project organization) and $y_2$ is the continuous treatment (market-like to hierarchy) that is subject to self-selection (Hausman, 1978; Wooldridge, 2015). In the second stage model, along with $\lambda$, I also include the interaction of $\lambda$ and $y_2$ to test the null of exogeneity of $y_2$ (the heteroskedasticity-robust Hausman test). If this interaction is omitted, the results are identical to that of the two stage least squares (2SLS) approach (Wooldridge, 2015). The selection model (first stage) includes the variables of interest included in the analysis of temporary project performance (second stage). I also include a variable that indicates prior ties between partners, as measured by the total number of instances that partners in the project organization have worked together on past World Bank projects. Absence of prior ties between partners has been shown to increase the likelihood of hierarchical governance (Santoro & McGill, 2005); however impact of prior ties on project performance is not straightforward. Past experience together has been shown to decrease future performance when partners were dissatisfied with each other (Hoang & Rothaermel, 2005) or increase performance as the firm experience helps build capabilities and trust in working together (Gulati & Sytch, 2008; Poppo, 2008). Fewer past ties predict greater hierarchy in the first stage, but do not predict performance in the second stage.

RESULTS

The dependent variable (Outcome) ranges from 1, for those projects that were rated highly unsatisfactory, to 6 for those projects that were rated highly satisfactory in meeting their objectives. The primary estimation approach is an ordinary least squares model. As a robustness check, I also ran all models eliminating environmental and behavioral uncertainty in the first stage, as the governance choice may have been concurrent or prior to choices of partners. For example, in the temporary project organization with firms A, B, C and D, if firms A and B have worked on two prior projects together, and firms B and C have worked together on one prior project, the alliance would receive a score of “3”.

For an additional robustness check, I estimated the model using a tobit regression and an ordinal logistic regression given the categorical nature of the outcome variable. Results from both models show no differences in the size or significance of the estimations.

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43 For example, in the temporary project organization with firms A, B, C and D, if firms A and B have worked on two prior projects together, and firms B and C have worked together on one prior project, the alliance would receive a score of “3”.
44 For an additional robustness check, I estimated the model using a tobit regression and an ordinal logistic regression given the categorical nature of the outcome variable. Results from both models show no differences in the size or significance of the estimations.
provides summary statistics and intercorrelations for all variables used to assess the performance of the temporary project organization.\textsuperscript{45} See Table 4.

Table 5 summarizes the results of eight separate regression models designed to test the two hypotheses. Model 1 is the first stage that predicts the extent of hierarchy in the temporary project organization given the variables of interest. Models 2 through 4 examine the relationships between \textit{outcome}, \textit{hierarchy}, and the two types of uncertainty, \textit{environmental uncertainty} and \textit{behavioral uncertainty} after controlling for prior ties, host country institutional strength, host country economic stability and strength, project amount, and country, financing, procurement, year and sector dummies. Model 5 is the full model; Model 6 examines only infrastructure projects, and Model 7 excludes the selection control (\textit{lambda} and \textit{lambda}{\text{*}}\textit{hierarchy}). See Table 5.

Hypothesis 1 suggests that as the environmental uncertainty of the temporary project organization increases, more hierarchy will help the performance of the temporary project organization, depending on whether the lead partner has knowledge of the local environment. In Model 3, the coefficient of \textit{hierarchy} \text{*} \textit{environmental uncertainty} in those projects where the lead partner has knowledge of the local context is positive and significant ($b = 0.019$ and $p = 0.013$), implying that in instances of environmental uncertainty, greater hierarchy improves the likelihood of project performance. In examining Model 4, which includes those projects where the lead partner does not have knowledge, results do not hold.

Hypothesis 2 predicts that depending on the type of project, under conditions of high behavioral uncertainty, more hierarchy will harm the performance of the temporary project organization. Across all types of projects (Model 5), there is no effect on performance; however, when only infrastructure projects are examined, the coefficient of \textit{hierarchy} \text{*} \textit{behavioral uncertainty}...\textsuperscript{45} Descriptive statistics were also run on the sample of infrastructure projects ($n = 814$) and no significant differences were present between the full sample and the sub-sample.
uncertainty is negative and significant ($b = 2.13$ and $p = 0.045$), implying that in instances of behavioral uncertainty, greater hierarchy reduces project performance. Results hold in the full model when examining the conditional effects (infrastructure and lead partner) and when the selection criteria are removed (Models 8 and 9).

The economic impact of even a small change to the performance of the temporary project organization is significant and should be noted. Limited work exists in translating differences in project ratings to economically significant measures typical for large projects such as increased cost to deliver the project (over-budget) or increased amount of time for project completion. However, past research by Kilby (2000) examines the economic rate of return of World Bank projects and shows that a 0.01 point change in the former four-point performance rating of the Bank translates to a 0.05 percentage point increase in the economic rate of return of the project. Kilby calculates for a $180$ million project, a 5 basis point increase in the economic rate of return of the project (e.g., moving from the average rate of return of 15.7% to 15.75%) translates to $81,818$. In Kilby’s research, the average economic rate of return for an unsatisfactory project was calculated as 3.4%; the average economic rate of return for a satisfactory project is 19.8%.

As a matter of comparison, in my analysis, in instances of high environmental uncertainty (e.g., two standard deviations above the mean), moving from an equally distributed project organization (0.25 concentration), to one with higher hierarchy (0.7 concentration) translates to approximately a 0.07 point increase in the predicted outcome of the project. To the extent that it is appropriate to extrapolate from Kilby’s findings, this increase would be associated with an approximately 23 basis point increase to the economic rate of return, implying that even a small change to the outcome of the temporary project organization has the potential for a substantial economic impact.

**Robustness Analysis**

102
As an additional robustness check, I explore the number of partners in the temporary project organization. The total number of partners varies significantly: in this research setting, the average project organization has 23 partners, with a standard deviation of 24, and a maximum size of 299 partners. This variation is partially driven by the inclusion of all contracts required to execute the project: for example, a partner that receives a small contract to provide supplies in the building of a bridge is included in the organization. The phenomenon that this paper explores — dynamics related to hierarchy and the ability to influence and develop norms to manage uncertainty — may not extend to a small partner. Thus, it is important to ensure that the results are not being influenced by the long-tail partners that comprise the sample. I rerun all of the analyses eliminating those partners that comprised less than 1% of the total project revenues. This reduced the sample of partners from 54,717 to 28,359; and reduced the average number of contractors on a project from 23 to 12 (and maximum from 299 to 48). Results hold across all models (see Model 10).

CONCLUSIONS & DISCUSSION

Prior to this research, scholars and practitioners may have concluded that the choice of governance structure in the temporary project organization was determined by the uncertainty that the organization faced, as aligned with transaction cost theory (Williamson, 1985). Yet past research lacks a theoretical and empirical understanding of the alignment between governance and uncertainty and the impact on the performance of the temporary project organization. To develop a more precise theory, I build on transaction cost theory, and specifically the impact of uncertainty on governance choice and on governance choice and performance (e.g., Casciaro, 2003; Krishnan, et al 2016; Sampson, 2004), and expand the prior, but limited work, on the

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46 I also used 0.1% as a threshold which reduced the contractor sample from 54,717 to 48,596. Results remained consistent.
temporary project organization’s unique characteristics and plural governance structure (Eccles, 1981, Sanderson, 2012).

Past research is mixed and inconclusive on the direct effect of environmental uncertainty on governance choice (Cuypers & Martin, 2007), as past theory empirically and theoretically supports the view that the effect of environmental uncertainty on governance choice is contingent on asset specificity (Williamson, 1985). As a baseline, this study does not aim to be conclusive of the direct effect of environmental uncertainty, but rather this study shows that under conditions of environmental uncertainty, more hierarchy helps the performance of the temporary project organization. Environmental uncertainty—the uncertainty that results from an unknown or volatile external context—requires the temporary project organization to gather and disseminate knowledge about the unknown environment, and effectively manage external stakeholders. Hierarchy allows for efficiency in decision-making, especially once conflict has occurred (Lumineau & Malhotra, 2011), and for ease in coordinating information across partners (Van Marrewijk, et al, 2016). Furthermore, this study shows that the effect of hierarchy under conditions of environmental uncertainty is most pronounced in those temporary project organizations whose lead partner has some knowledge of the local environment. Hierarchy helps, but only when the partner at the top of the hierarchy can share the right information or dictate the appropriate norms to the rest of the organization.

However, given the strong contingent relationship of asset specificity on environmental uncertainty (Williamson, 1985), there remains an open question as to whether the relationship between environmental uncertainty, hierarchy, and performance would change for the temporary project organization under varying degrees of asset specificity. In my analysis, I control for sector and procurement type, two potential high-level proxies for how non-specific the interactions are amongst the members of the temporary project organization (e.g., supplying goods versus developing and building a power plant); but a finer-grained measure of the overall
nature of “asset-specificity” in the temporary project organization (e.g., does the project have a significant R&D component) is an important future avenue of research.\(^{47}\)

Behavioral uncertainty is the difficulty in predicting the actions of partners (Williamson, 1985). Past empirical work is inconclusive on governance choice in light of behavioral uncertainty (David & Han, 2004), and as such, there remains an open question of whether hierarchy helps or harms the performance of the temporary project organization under high behavioral uncertainty. I predict and find that the relationship between behavioral uncertainty, hierarchy and performance is dependent on the type of project. Projects that are characterized by industry norms and regulations, as well as project-level key performance indicators and visible signs of task execution (Swärd, 2016) may require less monitoring of partners, and place a greater emphasis on trust and social mechanisms to be successful (Eccles, 1981). Thus, I posit that for these projects, as measured by projects in the infrastructure sector, trust-building with partners is critical, and more hierarchy has the potential to harm the project’s ability to build cohesion and reduce conflict amongst partners.

This conditional effect of behavioral uncertainty provides additional insight to the debate of whether behavioral uncertainty should even be considered a distinct form of uncertainty, or if behavioral uncertainty is simply another lens on opportunism, an underlying assumption of transaction cost theory (Cuypers, et al 2021). Williamson (1981) vacillated between the importance of behavioral uncertainty and concluded that environmental uncertainty was the relevant type of uncertainty impacting governance of organizations (Williamson, 1991). This research does not directly address this debate, and neither refutes nor supports the view that a

\(^{47}\) Past work has typically looked at the asset-specific investments of a single partner, though recent research has begun to explore the asset-specific investments of both partners in a transaction (Poppo, Zhou, & Li, 2016; McEvily, Zaheer, & Kamal, 2017). For the temporary project organization, a group-level asset-specificity measure would be required.
reduction in environmental uncertainty reduces behavioral uncertainty (Cuypers, et al 2021). This may be partially a result of the type of behavioral uncertainty considered in this research—time working with partners. Other types of behavioral uncertainty—such as partner differences—may more closely link to environmental uncertainty, especially in circumstances where partner differences are necessary to navigate environmental uncertainty (e.g. Dorobantu, et al 2019). As considered by others (e.g., Krishnan, et al 2016), further exploring the interplay between environmental and behavioral uncertainty on the governance—performance link is an important extension of this research.

I acknowledge both the “order view” and the “conflict view” of the temporary project organization: as theorized by the “order view” of the temporary project organization, hierarchy does indeed help under conditions of uncertainty, but, it remains important to consider—aligning with the “conflict view”—that there are potential downsides to hierarchy and fiat. More hierarchy in the temporary project organization can create conflict and competition, as partners push against the lead partners with access to project resources (Van Marrewijk, et al 2016). Hierarchy may harm the social capital, trust, and relational processes that are critical to project success (Clegg, et al, 2002). For example, under conditions of low environmental uncertainty where there is less need to rapidly make decisions or react quickly to a changing context, greater hierarchy may have a negative impact on the performance of the temporary project organization. Given the plural governance of the temporary project organization, this study helps to further shed light on when hierarchy might be harmful, and the micro-processes (e.g., competition, conflict, and distrust) that result from an unequal allocation of resources amongst partners in the temporary project organization. A useful extension of this research would be to better understand what may prevent these project organizations from efficient organization (Nickerson & Silverman, 2003), and what strategies, if any, the project organization can take if organized inefficiently.
This paper makes several important contributions. First, it offers a deeper understanding of the temporary project organization and what contributes to the success of this organizational form, a form primarily studied through the project management and construction fields (e.g., Sydow & Braun 2017), but less so in the strategy and management fields. It builds on the work of management scholars such as Bechky (2006), Majchrzak, et al (2007), and Schwab, et al (2008), that examines the structure of the temporary project organization, and how control, coordination, and relational mechanisms impact the ability of the organization to achieve its stated goals. It also offers insight into how these temporary project organizations may incorporate mechanisms – whether a strong owner or a more equitable distribution of resources – to increase the likelihood of success. Past work on the temporary project organization has developed theories as to the importance of the external environment, and relationships between partners within the temporary project organization, but has so far primarily focused on supporting these theories through case-studies and other qualitative research. This study’s empirical setting of 2319 temporary project organizations that span geographies and industries offers quantitative support for the factors that impact project success.

Second, this study extends our understanding of transaction cost theory in hybrid forms of organizations. Specifically, it builds on the growing but limited empirical work examining how misalignment between governance choice and the context in which the organization operates affects performance (Leiblein, 2003; Sampson, 2004; Sampson, 2007; Martin, 2013; Krishnan, et al, 2016). It contributes to this body of research in two important ways: first, it examines governance choice, uncertainty and performance in a hybrid organization, whereas past research focuses on two-party relationships. It offers an understanding of governance choice as a continuum (i.e., the degree of hierarchy) and utilizes a two-stage model to incorporate the continuous nature of the governance choice. Second, this study measures the group-level performance—as defined by whether the temporary project organization reached its stated
objectives—as opposed to the performance of a focal firm in the transaction. It heeds the call to examine governance choice and performance using a metric other than profitability (Cuypers, et al 2021), and heeds the call to examine the interplay of environmental and behavioral uncertainty (Krishnan, et al 2016).

Lastly, given its empirical setting, this study contributes uniquely to the extensive body of work in the international development and development economics fields examining the drivers of performance in World Bank-funded projects by exploring how the governance of these project impact performance. Despite vast literature exploring how project and country-level variables impact the success of these projects, limited research explores the impact firm characteristics have on project outcomes. A very small number of studies have begun to examine how firm characteristics impact these large projects: McLean (2017) examines firm procurement processes and firm political ties on World Bank projects; Malik & Stone (2018) examine if a project contractor is a Fortune 500 company. This paper—in examining partner experience and partners’ institutional backgrounds—adds to this nascent and growing body of work.

**TABLES & FIGURES**

**Table 4: Descriptive Statistics and Correlation Matrix**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
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<tr>
<td>(1) Outcome</td>
<td>3.95</td>
<td>1.00</td>
<td>1.00</td>
<td>6.00</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>(2) Hierarchy</td>
<td>0.25</td>
<td>0.20</td>
<td>0.01</td>
<td>1.00</td>
<td>-0.07</td>
<td>1.00</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>(3) Environmental Uncertainty</td>
<td>12.63</td>
<td>14.19</td>
<td>0.00</td>
<td>86.27</td>
<td>-0.09</td>
<td>0.13</td>
<td>1.00</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>(4) Behavioral Uncertainty</td>
<td>0.47</td>
<td>0.18</td>
<td>0.00</td>
<td>0.97</td>
<td>-0.03</td>
<td>-0.14</td>
<td>-0.08</td>
<td>1.00</td>
<td></td>
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<td></td>
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<td>(5) Prior Ties</td>
<td>17.83</td>
<td>73.98</td>
<td>0.00</td>
<td>2779</td>
<td>-0.01</td>
<td>-0.15</td>
<td>-0.01</td>
<td>0.03</td>
<td>1.00</td>
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<tr>
<td>(6) Project Size ($)</td>
<td>5.07E+07</td>
<td>1.21E+08</td>
<td>27433</td>
<td>2.01E+09</td>
<td>0.05</td>
<td>-0.07</td>
<td>-0.01</td>
<td>-0.02</td>
<td>0.09</td>
<td>1.00</td>
<td></td>
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<tr>
<td>(7) Country Economic Strength</td>
<td>4299</td>
<td>3707</td>
<td>282</td>
<td>23160</td>
<td>0.06</td>
<td>-0.27</td>
<td>0.01</td>
<td>0.06</td>
<td>0.03</td>
<td>1.00</td>
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<tr>
<td>(8) Country Economic Volatility</td>
<td>0.07</td>
<td>0.06</td>
<td>0.00</td>
<td>0.46</td>
<td>-0.01</td>
<td>0.11</td>
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<td>0.06</td>
<td>-0.09</td>
<td>1.00</td>
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<tr>
<td>(9) Country Institutional Strength</td>
<td>35.15</td>
<td>15.39</td>
<td>0.76</td>
<td>86.06</td>
<td>0.08</td>
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<td>0.00</td>
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108
Table 5: Predicting Performance

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<th></th>
<th></th>
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<tbody>
<tr>
<td>Hierarchy</td>
<td>0.389</td>
<td>-0.32</td>
<td>4.59*</td>
<td>-0.508</td>
<td>-0.0864</td>
<td>-45.65</td>
<td>-6923.3</td>
<td>0.237</td>
<td>0.89</td>
</tr>
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<td></td>
<td>(0.4)</td>
<td>(-0.28)</td>
<td>(2.05)</td>
<td>(-0.65)</td>
<td>(-0.06)</td>
<td>(-0.73)</td>
<td>(-0.02)</td>
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<td>Y</td>
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N: 2319

t statistics in parentheses
* p<0.10, ** p<0.05, *** p<0.01
Figure 5: Predicted Values by Hierarchy and Uncertainty
CHAPTER 3: DEVELOPING CONFLICT: ELITE BIAS IN THE STAKEHOLDER NETWORKS OF GLOBAL PROJECTS

(This paper is co-authored with Witold J. Henisz)

From 2017-2021, the World Bank disbursed over $2.25b to a series of energy projects in the Cabo-Delgado region of Mozambique (World Bank, 2020) that collectively comprise $60b of planned private capital inflow (i.e., the largest in Africa) into the 6th poorest nation in the world. The Bank stated that its investments “focusing on Cabo Delgado and the underlying causes of fragility and conflict in Mozambique is not only an economic imperative, but a moral one” (World Bank, 2020). The Chief Investment Officer of the African Development Bank wrote that “we are excited about the growth and industrialization opportunities created through this project for the Mozambican population.” The AfDB further highlighted the potential of the project to contribute to development by “boosting employment, expanding universal electricity access and leveraging natural resource development for investment in sustainable infrastructure” (African Development Bank Group, 2021).

However, local residents “complain they have seen little of this wealth or investment passing down into their community” (Gardner, 2021) and others claim that the “vast mineral wealth in the region had been exploited by an elite few with the majority of residents not reaping any profits” (Al Jazeera, 2021). Starting in the same year as the World Bank financing of the projects, a violent militant insurgency involving rebels, the local community, and the national army has resulted in 798 incidents of conflict with nearly 4,000 fatalities and over 600,000 refugees (World Bank, 2021). In late March of 2021, terrorists groups launched a deadly attack on one of the projects, killing dozens, leading to the flight of 11,000 civilians and forcing Total, the project owner, to halt work and evacuate its workers. The attack, more broadly, called into question the viability of the full set of projects by ExxonMobil, Chevron, BP, Mistsui and Petronas (Hill & Burkhardt, 2021). Analysts suggest that the ability to move forward with
planned investment hinges not on the mobilization or tactics of the national army nor on the 
mercenaries employed by some companies but rather on increasing “investment in the local 
community: schools, roads, jobs - enough to assuage people's sense that they have been 
abandoned by their government while big foreign multinationals sweep in and reap the benefits of 
their country's precious natural resources” (Gardner, 2021). Our research explores whether the 
governance and organization of projects such as this one—large World Bank funded development 
projects—may have actually contributed to this conflict.

Since its inception in 1960 and original mandate to rebuild Europe after World War II, 
the World Bank has used below market interest loans to fund development projects that focus on 
improving economic growth and increasing prosperity in the world’s poorest countries. More 
recently, the Bank has shifted its focus and commitment to supporting not only the poorest 
countries, but also those countries that suffer from conflict, and “little by little, the World Bank 
has become an institution focused on war” (Flores & Nooruddin, 2008: 2). This shift in focus is 
aligned with the Bank’s argument that economic progress reduces the risk that conflict and post-
conflict states will fall back into political violence (World Bank, 2003, 2011a).

To support this economic progress, the Bank originally required few conditions on a 
borrowing country for its investments. However, in response to growing evidence that the impact 
of World Bank projects on poverty and development was contingent upon the stability of the 
macroeconomic policy environment and controls on corruption or self-dealing in the private 
sector (World Bank, 1992), the conditions under which investments were provided were widened 
to incorporate macroeconomic, fiscal and micro-economic conditions at the country-level 
(Dreher, 2004; Kilby, 2009; Koeberle, Silarszky & Verheyen, 2005; Hopkins, Powell, Roy & 
Gilbert, 1997). Over time, similar analyses of the performance implications of the governance of 
projects, has led to heightened attention to the process of choosing and supervising project
contractors (e.g., monitoring and evaluation, environmental, health and social due diligence) (Limodio, 2011; Denizer, Kaufmann & Kraay, 2013; Kilby, 2000, 2015).

A growing body of research examining the determinants of conflict analogously suggests that investment strategies formulated without reference to considerations of horizontal inequalities (i.e., the distribution of economic, political, and social resources between groups (Stewart, 2000)) are likely to underperform their financial and operational targets and, potentially, aggravate conflict risk. When identity groups, defined by ethnicity, religion, culture, race, political ideology, class, gender, age, geography, and organizational affiliation (Stewart, 2008), perceive the distribution of economic, political, and social resources to be unfair, group cohesion and identity are reinforced (Brown & Langer, 2010; Gurr, 1993) as is collective action to address injustice (De Juan & Wegner, 2019), in-group cohesion (Gubler & Selway, 2012; Humphreys & Weinstein, 2008) and barriers to inter-group socialization (David, Guilbert, Leibbrandt, Potgieter, & Hino, 2018; Hino, Leibbrandt, Machema, Shifa, & Soudien, 2018.). Despite growing evidence that economic resources (Asal, Findley, Piazza, & Walsh, 2016; Hunziker & Cederman, 2017; Joseph et al., 2020; Mählcr & Pierskalla, 2015) and business activity in particular (Ganson, 2019b; Zandvliet & Anderson, 2009) exacerbate these processes, the Bank is limited in its ability to extend conditionality or project design to cover these distributional issues by the text of its founding charter\(^{48}\) which prohibits interference in political affairs (Woods, 2010; Santiso, 2001; Lemdjo, 2020; Winters, 2010).

Our analysis demonstrates that this inability to take into account socio-political factors, external relationships, and project composition, especially in fragile states such as Mozambique, undermines the developmental goals of the Bank and, under certain conditions, leads World

\(^{48}\) Article IV Section 10 of the World Bank charter states that “The Bank and its officers shall not interfere in the political affairs of any member; nor shall they be influenced in their decisions by the political character of the member or members concerned.” [https://www.worldbank.org/en/about/articles-of-agreement/ibrd-articles-of-agreement/article-IV](https://www.worldbank.org/en/about/articles-of-agreement/ibrd-articles-of-agreement/article-IV)
Bank-sponsored projects to contribute to conflict. In this paper, we focus on the stakeholder engagement patterns, national composition and selection of firms that execute World Bank-sponsored projects and theorize why certain projects may not only instigate conflict directed towards the Bank and the development project, but also more broadly instigate conflict within the network of political, social and economic groups in the surrounding environment.49

We build on past work that explores how the lack inclusiveness of development projects has the potential to instigate conflict toward project sponsors and in their surrounding contexts more broadly (e.g., Dube & Vargas, 2013; Berdegué, Escobal & Bebbington, 2015; Amengual, 2018). Specifically, we build on theory that elite bias in the stakeholder network of a project—that is, the lack of inclusiveness of a broad range of external stakeholders—instigates conflict between aggrieved stakeholders and favored political and social groups (Henisz, 2019) which can spillover into the broader societal network (Ganson, He & Henisz, 2021) by examining how the composition and selection of project organizations exacerbates the effects of elite bias on conflict. We theorize that the effect of elite bias is worsened under conditions of high institutional distance of project members. Project organizations that are distant from the local environment, that is, are comprised of members who are not familiar with the context in which they are operating, may lead to misunderstandings or resentment from local stakeholders (Yang & Rivers, 2009; Berry, Guillén & Zhou, 2010). We theorize and find that the way firms are selected into the project organization exacerbates the effect of bias on conflict, as the selection may enhance overall inequality in the local environment by providing greater benefits to high status or well-resourced stakeholders at the expense of more peripheral marginalized groups (Nartey, Henisz, & Dorobantu, 2018). Lastly, we argue that this bias harms those states most in need of support: building on literature exploring business and peace (Ganson, He & Henisz, 2021), we argue that

49 Though we believe the empirical patterns we observe would apply generally to any multinational firm operating in these contexts, we currently lack the data to formally test this conjecture.
in conflict-affected areas, the project organization may alter the structure between groups already in conflict, thus altering the conflict risk present between these groups.

Past cross-national research on the effect of development projects on conflict has typically focused on national-level effects, such as the increase in institutional strength or absence of violence through country-indicators, or a measure of the number and types of deaths or large scale protest events present in a country (e.g., Flores & Nooruddin 2009). Yet, country-level measures fail to describe the heterogeneity of conflict that takes place within a country and, in particular, in proximity to one project or another. Furthermore, such analysis, in analyzing only deaths or other mass conflict events (e.g., demonstrations) omits conflictual actions or statements that do not rise to such a level of prominence. Both of these data limitations undermine researchers ability to link conflict to development projects and heterogeneity across them as well as to identify the specific drivers of conflict escalation in those projects.

To explore how composition, selection, and context drive conflict in the external environment of World Bank projects, we use public World Bank data on 763 projects comprised of approximately 16,000 partners across 124 countries from the years 1989-2019. We develop a novel measure of conflict through the third-party analysis of media reports within 50km of the projects provided by the Global Database on Environment, Language and Tone (GDELT). GDELT data are based on both international and translated local news sources coded using the textual analysis by augmented replacement instructions system (Leetaru & Schrodt, 2013). From this database, we extract information on the average reported degree of overall, verbal and material conflict and cooperation as well as the shifting pattern of relationships among stakeholders over the life of the project. Through this panel dataset and localized measure of conflict, we are able to examine conflict prior to and during the life of the project organization.

For example, a dispute between two ethnic groups that is resolved non-violently.

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and are thus able to associate the effect the organization has on conflict in the environment in which it operates.

This research makes several important contributions. First, we lend support to the argument that development projects and the private organizations that execute them can induce conflict in the environment in which they operate. We extend contest theory, which predicts that development aid increases conflict (e.g., Hirshleifer 1989, 1995; Collier & Hoeffler, 2004) by highlighting the role of elite bias as suggested by scholars examining horizontal inequality (Stewart, 1998, 2008, 2011) as well as examining the role of the characteristics of the project organization (Denizer, et al, 2011; Winters, 2014; Kilby, 2015; McLean, 2017; Malik & Stone, 2018). We extend recent theory of the impact of elite bias on conflict (Henisz, 2019, Ganson, et al 2021) to show how project characteristics aggravate the impact of this bias. In doing so, we contribute to the work of past scholars such as Crost, Felter & Johnson (2014), Berman, Couttenier, Rohner & Thoenig (2017), and Sexton (2016) that shows when and how development projects lead to an increase in conflict. For our research context—projects funded by the World Bank—we highlight that the impact of development aid, in some cases, has the opposite effect than intended, and we highlight the attention the Bank and other development institutions can and should place on how and who is selected for these projects as well as how and whom they engage in the host country environment.

Second, to management scholarship, our research contributes a new outcome measure focused on societal outcomes, specifically societal conflict, and emphasizes a broader view of firm impact. In management research, scholars have long examined how firm behavior impacts outcomes such as innovation, formation, longevity, and financial success, among others, yet have only limitedly taken into account outcomes related to the external environment in which a firm or firms operate. As such, we build support for the view that firm behavior should be examined beyond its impact on shareholders (e.g., Friedman, 1962) and extended to its impact on other
stakeholders, such as non-profit organizations, ethnic groups, local businesses, governments, and other members of civil society. Furthermore, we add to the research that examines how composition and partner background affect project organizations (Wuyts & Dutta, 2014; Jiang, Tao & Santoro, 2010; Zhang, Gupta & Hallen, 2017), and extend our understanding of how project organizations interact with and are impacted by the external environment in which they operate (Grabher, 2004; Dorobantu, Lindner, & Müllner, 2019). We build on the body of work exploring how exogeneous violence, instability, and conflict, affects the ability of the project organization to successfully achieve its goals (Söderlund, 2004; Cagno, Caron & Mancini, 2007; Henisz, Levitt & Scott, 2011). In the closing of this paper, we elaborate on these specific contributions and avenues for future research on this topic.

THEORY & HYPOTHESES

Despite the significant investments of donor countries and multilateral institutions such as the World Bank, there is a long-standing debate on the impact of development projects on economic progress (Doucouliagos & Paldam, 2009, Tierney, et al 2011), and more specifically, the impact of development projects on conflict and peace (Berman, Shapiro, & Felter, 2011; Findley, 2018). In research and in practice, development projects are argued as a critical way to improve economic, social, and other outcomes in fragile and conflict-prone states, and to promote sustainable peace (Ball & Halevy 1996; Kreimer et al. 1998; Fearon, Humphreys & Weinstein, 2009). This involvement of the World Bank and other donors in conflict alleviation is predicated on the theory that the inflow of capital, in the form of development aid or foreign direct investment, reduces stakeholder conflict, as the opportunity cost of fighting increases with a rise in income brought about by increased capital (McGuirk & Burke, 2017; Grossman, 1991). Extensive research supports this theory (e.g., Duponchel, Chauvet & Colliers, 2010; Fearon, Humphreys & Weinstein, 2009; Gehring, et al, 2018).
At a high level, the business for peace literature, which posits that businesses can generate economic prosperity in conflict-affected areas and thus support peace-building (Brown, 1966; Forrer & Katsos, 2015; Miklian & Schouten, 2019), adds further support to the argument that development projects may reduce conflict. The involvement of firms has long been a central part of development policy (Kolk, Van Tulder & Kostwinder, 2008) and development projects are comprised of multiple foreign and local firms that come together to execute on the project’s mandate. As such, the resources provided and strategies taken by firms comprising these projects may also address grievances to alleviate conflict and build cohesion amongst disparate stakeholder groups because they “bring people together for work” (Fort & Schipani, 2004:3). Overall, the firms working on development projects generate income, jobs, and increase economic prosperity for local stakeholders, reducing the opportunity cost of fighting.

Yet, the rise in income and other benefits, such as profits, jobs, and other externalities, brought about by a development project, may not be allocated fairly across all stakeholders (Joseph, Katsos, & Daher, 2020; Miklian & Schouten, 2019), and these benefits are perceived to be more easily captured by existing power brokers (Gugerty & Kremer, 2008; Ensminger, 2007; Morelli & Rohner, 2015). Thus, stakeholders may perceive that one group or faction has disproportionately benefited or been harmed by the project: this sense of relative economic deprivation may trigger mobilization and (violent) conflict directed at the project (Gurr, 1970; Henisz, 2019, Schouten & Mikian, 2018); and stakeholders may find fighting more attractive in order to wrest control of the gains offered by the development project (Collier & Hoeffler, 2004). This view is known as the contest (or rapacity) theory and posits that the greater resources brought about by development aid provide a greater incentive to fight for these resources (Grossman, 1992), and thus, development projects will incite, as opposed to mitigate conflict between stakeholders.
Past research supports this theory and has shown that development programs, food aid, education projects, and infrastructure investments can incentivize and fuel violent conflict (Crost, Felter & Johnson, 2016; Nunn & Qian, 2014; Child, 2018; Meskell, 2016; Berman, Couttenier, Rohner & Thoenig, 2017). For example, Crost, Felter, & Johnston (2014) showed that rebel groups sabotaged a development project because the project had the potential to reduce community support of the rebels. Dube and Vargas (2013) found that in Colombia, capital-intensive projects fueled overall conflict in the community when the gains of the project most likely accrued to a small elite. Morelli & Rohner (2015) show that civil war is more likely with increasing concentration of resources, as well as greater concentration of ethnic groups. Uvin (1998) explores the role of development aid and projects in violence in Rwanda, and the impact of inequality, exclusion, and elite dominance as precursors to the Rwandan genocide.

Furthermore, scholarship in the management field lends additional support to the link between development projects and conflict. Recent research explores how the project organization’s strategies for navigating external stakeholder relationships impact the level of conflict directed towards the project organization (Dorobantu, Henisz & Narrey, 2017), and how these strategies may instigate new or exacerbate existing conflict between stakeholders in its external context (Ganson & Wennmann, 2018; Ganson, He & Henisz, 2021). Development projects may increase the economic gains in a community, yet the distribution of those gains is what matters for conflict (Gehring, et al 2018; Berman & Couttenier, 2015).

As long explored by economists, sociologists, and management scholars, systemic conflict can result from inequality between groups (Humphreys, 2003; Stewart, 2000; Blau, 1964). As such, project organizations that engage with and involve a broader set of stakeholders in their operations experience less conflict directed toward their projects (Henisz, 2019), and as a result experience superior financial returns (Henisz, et al 2014) especially in the aftermath of critical events (Dorobantu, Henisz & Narrey, 2017). Conversely, those projects that are biased
towards a small elite risk other stakeholder groups’ resentment towards the concentrated project participants and beneficiaries of the project organization (Nartey, Henisz & Dorobantu, 2018). Furthermore, recent work argues that firm strategies in their relationships with direct stakeholders may also impact the structure of the relationships between these stakeholders and other political and social groups (Ganson, He, & Henisz, 2021). Specifically, as a result of this set of systemic interdependencies, these project organizations in their distribution of resources can worsen existing inequities between groups, especially in conflict-prone environments, and thus drive overall conflict in the system (Ganson, He, & Henisz, 2021).

A growing body of qualitative evidence in the business and peace tradition builds on these insights to highlight the possibility that business insensitive to its context might actually promote societal conflict (Drohan, 2010; Ganson, 2019a) in many cases unintentionally (Bardouille-Crema et al, 2013; Zandvliet & Anderson, 2009; Milkian & Schouten, 2019) by increasing grievances or marginalization of some groups (Obenland, 2014) or aggravating a sense of injustice by losers to the winners of economic and political competition (Miklian, 2019).

In particular, this research highlights the role of elite bias—that is, the lack of inclusion and representativeness in the network of the project organization’s relationships—as a driver of societal conflict between the full set of social, political, and economic stakeholders (Henisz, 2019, Ganson, He & Henisz, 2021). For example, Amengual (2018) explores the choice between inclusive or targeted distribution of benefits from mining operations in order to avoid conflict. Similarly, Kemp, et al (2011) highlights asymmetries of power as a driver of conflict, and participation as a mechanism to mitigate it; and, Gross (2007) emphasizes the importance of the perception of fairness and community participation in the acceptance of energy projects. An inclusive and equitable governance structure is linked to positive socio-economic outcomes (Berdegué, Escobal & Bebbington; 2015), thus elite bias in the project organization’s network
(that is, the relational network of the World Bank and other multilateral funders) drives conflict in
the broader system in which it operates.

As a baseline hypothesis, we posit:

**Baseline Hypothesis:** Greater elite bias in the project organization’s relational network increases the overall level of conflict in the project environment.

Under certain conditions, the effect of elite bias may be heightened, and consequently, have a greater impact on conflict in the surrounding environment. We first theorize that the project organization’s knowledge of the local context (i.e., its “distance” from that environment) impacts the effect of elite bias on conflict. Specifically, we focus on institutional distance—the differences in the formal and informal ways of operating between the project organization’s members and the institutional context in which the project is located. The institutional context encompasses the implicit and explicit values, norms, beliefs, and collective understanding of how to operate (North, 1990). Project organizations operating in a distant institutional context, that is, are comprised of members who are not familiar with the context in which they are operating, need both knowledge of the local environment (e.g., an understanding of local regulations or customs) and influence with external stakeholders to be successful (Henisz & Delios, 2001; Delios & Henisz, 2003, 2004; Henisz, 2003; Henisz, Dorobantu, & Narrey, 2013).

Institutional distance heightens the effect of elite bias on conflict in two primary ways. First, a project organization’s lack of familiarity with the context in which it is operating may lead to misunderstandings or resentment from local stakeholders (Yang & Rivers, 2009; Berry, Guillén & Zhou, 2010). Effective coordination with and acceptance by external stakeholders is important for a project organization to be successful (e.g., Arnstein, 1969; Chuguill, 1996), and failing to comprehend and incorporate an institutional lens increases project costs (Scott & Orr, 2008). Strategies for coordination and acceptance include creating shared values, objectives, and a sense of social closeness and cohesion between stakeholders and the organization and engaging
with stakeholders frequently (Sarkar, Aulakh & Cavusgil, 1998; Clegg, et al 2002; Chan, et al, 2004). Shared values, norms, and operating expectations with external stakeholders can increase trust and ease communication between groups, resulting in reduced conflict. For example, Whiteman and Mamen (2002) found that conflict between a mining company and indigenous groups was partly driven by the company’s lack of understanding and respect for the indigenous group’s worldviews. Project organizations comprised of partners that are institutionally far from the host country, and thus do not have closely aligned values, norms, and a shared way of operating may find it challenging at building relationships with external stakeholders, and thus have challenges building the trust, communication and coordination that reduces conflict.

Second, institutionally distant project organizations may lack knowledge about the local environment, and lack the capabilities required to navigate local institutions (Luo, 2001; Xu & Shenkar, 2002). Specifically, distant project organizations may lack knowledge about existing frictions and existing grievances between different stakeholder groups. Thus, the project organization may disproportionately engage or provide benefits and opportunities to one group, faction or clique and harm or fail to engage with a competing group thereby exacerbating a historic conflict (Blau, 1964; French & Raven, 1959).

We posit:

Hypothesis 1: Under conditions of high distance between the project organization and the local environment, greater elite bias increases the overall level of conflict present in the environment.

Second, we theorize that the method of selection into the project organization matters for driving external conflict. Firm participation in project organizations provides economic opportunity for local constituents, and the allocation of these project contracts has been shown to be a powerful way for governments to favor one stakeholder group over another (McLean, 2017). Thus, the selection of firms into the project organization may enhance overall inequality in the
local environment by providing greater benefits to high status or well-resourced stakeholders at the expense of more peripheral marginalized groups who resent their growing status distance from their peers and members of the project organization (Nartey, Henisz, & Dorobantu, 2018).

The World Bank mandates that the borrowing country (often via a project management office or other body) select firms and other organizations (e.g., individual contractors, non-governmental organizations) through a procurement process (World Bank, 2017). The Bank has taken extensive steps to ensure that the procurement process used for selecting the organizations that will execute on these development projects is fair and transparent, such that corruption, by way of allocating project contracts as favors, is diminished (World Bank, 2019). However, the procurement of members of the project organization can be done through means not fully supported by the Bank, i.e., through non-competitive bidding or other procurement processes that override Bank requirements. For example, one procurement type, *Single Source Selection*, is used in the selection of consultants and includes the caveat:

> Single-source selection of consultants does not provide the benefits of competition in regard to quality and cost, lacks transparency in selection, and could encourage unacceptable practices. Therefore, single-source selection shall be used only in exceptional cases. The justification for single-source selection shall be examined in the context of the overall interests of the client and the project, and the Bank’s responsibility to ensure economy and efficiency and provide equal opportunity to all qualified consultants. (World Bank, 2011b: 27)

Similarly, *Limited International Bidding*, which is used in the selection of good and civil works contracts, allows the project organization to selectively invite bidders “without open advertisement” of the contract. (World Bank, 2011c: 28).^{51}

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This lack of competition in the procurement process exacerbates the effect of elite bias on conflict in two primary ways. First, non-competitive procurement may allow local and regional governments to provide contracts to their allies and supporters, increasing the inequality amongst stakeholder groups. Governments use the procurement of contracts as a way to satisfy their constituencies (McLean, 2017); and rely on more familiar partners when allocating those contracts (McLean, 2021). In turn, groups that receive these contracts are likely to provide financial and/or political support for the incumbent government (Martin, et al. 1999; Rickard & Kono, 2013).

Second, a non-competitive procurement process for project contracts can increase the perception of injustice or lack of fairness in the overall system. As described through the concept of procedural justice (Rawls, 1971), perceptions of fairness influence acceptance of an outcome, and a lack of fairness in the decision-making in a community has been shown to damage the community’s social well-being (Gross, 2007). Scholars have shown that the perception of fairness, transparency, and the use of procedural justice is related to stakeholder dissatisfaction and stakeholder conflict, and that the use of procedural justice can help mitigate and resolve conflict once it does occur (Kemp, et al, 2011; Rees, 2011; Barron, Diprose & Woolcock, 2011; Kerselaers, et al 2013; Pichler, 2017). For example, Whiteman and Mamen (2002) in their study of Panama mining explored the relationship between justice and conflict between a mining company and indigenous groups. Through their case study analysis, the authors posited that conflicts over land allocation and power could have been mitigated with processes focused on procedural justice.

Thus, we predict that conflict is exacerbated in those projects where contract allocation of the largest contracts is non-competitive.
Hypothesis 2: Under conditions of non-competitive selection of the project organization participants, greater elite bias increases the overall level of conflict present in the environment.

Lastly, we predict that the effects of elite bias on conflict are heightened in contexts that are conflict-prone or experiencing existing conflict. Scholars have long argued that development projects are a critical way to improve economic, social and other outcomes in fragile and conflict-prone states, and ultimately, a way to promote sustainable peace (Ball & Halevy 1996; Kreimer et al. 1998; Fearon, Humphreys & Weinstein, 2009). This theory is predicated on the argument that poverty is a key driver of conflict, and that the economic gains and economic prosperity brought about by development projects break the poverty-conflict cycle: poverty triggers conflict which in turn creates more poverty and the cycle continues (Findley 2018). Yet, empirical results are mixed or non-conclusive in determining the impact that development projects have on conflict and post-conflict states (e.g., Flores & Nooruddin, 2009). Some scholars argue that the success of development projects in conflict and post-conflict states is dependent on the sector, how the projects are supervised, who is implementing the project, the size of project, the type of aid (i.e., whether it is politically motivated), among other conditions (Duponchel, et al 2017; Child, 2018; Sexton, 2018; Berman, Shapiro & Felter, 2011; Dreher, Klasen, Vreeland & Werker, 2013). Similarly, scholars in the business for peace field acknowledge that business’ effect on peace-building and conflict reduction is limited to those areas where conflict is of a low intensity (Oetzel, 2010). Forrer & Katsos (2015) suggest that business can promote peace but only in regions that are no longer suffering from high-intensity violent conflict.

We argue that the effect of elite bias in the relational network of the project organization on societal conflict is exacerbated in those areas where conflict is already present for two primary reasons. First, in conflict-affected areas, the project organization may alter the structure between groups already in conflict (Ganson, He & Henisz, 2021). Existing tensions between ethnic
groups can be amplified by projects (Gehring, et al 2018), and thus can exacerbate existing conflict between groups (Humphreys, et al 2007). For example, in a state experiencing civil war, rebels and the government may continue to fight for the resources brought about by a development project (Arcand & Chauvet 2001, Azam 1995, Grossman 1992). The second reason why this effect is exacerbated in conflict-prone states is because the economic benefits of the development project may provide additional capacity and financing for the military, rebels, or government groups to wage conflict against conflicting groups (Kishi & Raleigh, 2015) and increase control and power (Fearon & Laitlin, 2011). For example, Kishi, Maggio and Raleigh (2017) show that increasing foreign investment allows government regimes in Africa to fund and use violent strategies against opposition and other combatants. This effect is borne out in the backlash to aid projects as well: opposition forces may resist development projects using violent means to prevent government support, capacity, and increased control that may result from these projects (Sexton, 2016; Crost, et al 2014). Thus, we argue that the effect of elite bias on conflict is heightened in conflict-prone states.

Hypothesis 3: In conflict-affected and fragile contexts, greater elite bias increases the overall level of conflict present in the environment.

METHODS & SETTING

The setting for this study is a set of World Bank-funded projects that began and ended between 1999 and 2018. The World Bank provides funding, in the form of long-term concessionary loans to countries for projects that will impact the economic and social development of a particular country or region. The Bank supports in the identification, preparation, monitoring, and evaluation of these projects in collaboration with the host
countries.^{52} Private companies, individuals, and NGOs are contracted to each project by the borrowing country sponsor and comprise the project organization that executes the project. The partners that comprise the projects are selected through a variety of procurement methods (e.g., international competitive bidding, national competitive bidding, etc.) as previously discussed.

To create our sample, we combined the World Bank Project Database and the World Bank Contractor Database. The World Bank Project Database has been extensively used in past research exploring World Bank projects and their outcomes (Isham, Kaufmann & Pritchett, 1997; Kilby, 2000; Winters, 2014; Kilby, 2015); the Contractor Database is less explored in past research (McLean, 2017; Malik & Stone, 2018). The data are organized with one observation for each new contracting relationship (i.e., firm, individual or NGO) entered to support a World Bank project. In all, there were 99,428 contracting relationships introduced between 1999 and 2018 across 2,475 projects (the Contractor Database started collecting data in 1999).^{53} We sorted the projects based on total project cost to build our sample. Given that our study is predicated on the ability to generate GIS codes and examine the media corpus surrounding the project, we focused on our initial sample on large projects that could be mapped to a specific location. As such, we eliminated projects that spanned a country (e.g., health care, education or judicial reform) and could not be tagged to a specific location. For the remaining projects, we used the World Bank’s identifier of each project (the project id) to determine the location of the project (most often through the project page on the World Bank’s website, or through World Bank project documents). Based on this location, we used Google maps to determine the GIS coordinates of the project. For projects such as the building of a dam, there was one GIS coordinate, but for

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^{52} The World Bank refers to host countries as “borrowing countries,” but for the purposes of this study I follow nomenclature used in international business research and refer to the country where the project takes place as the “host country.”

^{53} For some projects, the same firm may have received multiple contracts (or a single contract was split into multiple observations). We combined contract observations (and summed contract amounts) to ensure that for each unique project there were not multiple observations with the same partner.
projects such as roads or pipelines, we entered a GIS coordinate for every 50km. For example, if there was a project where wells were drilled in various villages, we entered multiple GIS coordinates if the villages didn’t lie within the same 50km area. This resulted in a sample of 763 projects and 2,764 project locations.

Given our sampling strategy, our dataset is heavily weighted to the infrastructure sector (as these projects typically tend to be larger on average, and have specific locations), with infrastructure projects making up 85% of our sample, versus 35% in the full dataset and average project size of $361,000,000 instead of $131,000,000 in the full sample. The projects took place across 124 countries, with China hosting the most projects (128 projects) and India hosting the second most (41 projects).

**Conflict Amongst All Stakeholders in Project Environment:** To build our focal measure of conflict, we use the Global Database on Events, Location and Tone (GDELT). From the GDELT database, we extract the full corpus of media reports geotagged within 50km of the project coordinates in our dataset. GDELT contains approximately one billion distinct events mentioned in 4 billion print, broadcast and web news media articles in 65 languages. These episodes are coded using the textual analysis by augmented replacement instructions system (Leetaru & Schrodt, 2013). This system codes both material and verbal events: discrete interactions between two actors at a single time and place or a verbal statement by an actor about

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55 Some projects took place across multiple countries. For these projects, we included each country in our country-level variables for the projects.
56 See https://www.gdeltproject.org/
another actor (Leetaru & Schrodt, 2013). From each event, we are able to gather information on the time and location of the event, the source (i.e., who took action or made the statement), the target of that action or statement, and the nature of the interaction (Henisz, 2019). The actors (both source and target) in our dataset are classified by category include including businesses, governments, intergovernmental organizations, rebels, political opposition, among others.

For each project-year corpus of articles, we then use the data provided on the nature of interaction between the source and the target to calculate the average degree of cooperation or conflict among the actors, using a scale developed by Goldstein (1992) (see Appendix 1). With the help of an expert panel, the author ordered media-reported international events on a scale from most cooperative (which receive a score of 20) to most conflictual (which receive a score of 0). GDELT codes every single verb phrase in its corpus of 4 billion events along this scale. We use this measure to create COOPERATIONCONFLICT-ALL, a time-varying measure of the degree to which the actors in proximity to a project are engaged in cooperative or conflictual actions. In some of our analysis, we also examine the subset of events in which an intergovernmental organization is the target of an action of statement to create COOPERATIONCONFLICT-IGO. Given that these locations all contain World Bank projects, we assume that the IGO of focus is the World Bank, though GDELT is not able to verify this fact in all instances and, in some cases, other IGOs may also be part of financing the project organization.

Elite Bias in Stakeholder Network of Project Organization: Following Henisz (2019) we develop a measure of elite bias in the stakeholder network of the project organization which is a measure of the extent to which the project organization stakeholders in the network are more elite dominated relative to the rest of the network. Elite bias limits inclusiveness in the project

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58 See Henisz (2019) and Henisz and Mansfield (2017) for greater detail on the actors and action captured in the GDELT data, as well as an overview of the validity of GDELT’s coding.
organization and implies that fewer stakeholders are consulted during the project process, fewer stakeholders are in the rent chain, and there is a greater sense of injustice and unfairness regarding the project organization from other stakeholders. To capture this, within each project-year corpus, we compare the corpus of events in which the source actor is an intergovernmental organization to the corpus of all events. Using each corpus, we construct a network in which the sources and targets or each event comprise the nodes and the interactions (i.e., either material actions or verbal statements) comprise the ties between them. Following Neal (2008), we measure the extent of elite bias through a comparison of the Herfindahl index of IGO stakeholder degree centrality as compared to the Herfindahl index of degree centrality in the complete network of stakeholders.

\[
H_{it} = \sum_{n=1}^{N} \left( \frac{e_{nit}}{w_{it}} \right)^2
\]

Where:
- \(e_{nit}\) = # of media mentions of ties between stakeholder \(n\) and other stakeholders of type \(i\) in time period \(t\)
- \(w_{it}\) = # of media mentions of ties between stakeholders of type \(i\) in time period \(t\)

In networks where ties are more concentrated in a small set of actors, elite dominance (by these actors) is higher than in a network in which ties are more broadly dispersed. In each case, to take into account the strong dependence of our measure on network size, we then adjust the resulting index by calculating the percentile rank of the Herfindahl index among similarly sized networks. Finally, we use the relative percentile rank of the IGO Herfindahl index as our measure of elite bias (\(Elite\ Bias-IGO_{d}\)).

**Institutional Distance:** (Distance between the members’ of the project organization institutional contexts and host country institutional context): differences in the values and ways of operating across countries impact organizational behavior, including choice of countries, partners, and entry modes (Eden & Miller 2004; Henisz 2000; Jensen & Szulanski, 2004; Kostova & Zaheer 1999; Xu & Shenkar 2002). Institutional distance is a multi-dimensional measure that goes beyond the historic measures of cross-cultural distance (Berry, Guillén & Zhou 2010). Based on prior
research by Lavie & Miller (2008), these institutional differences can be measured by the World Governance Indicators (WGI), a set of six factors that measure country differences across administrative and political national environments. The World Governance Indicators rate countries on a scale of 0-100 on the following six factors: voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law, and control of corruption. For each host country (country where the project takes place), and for each member of the project organization, we average the six factors between the year 1999-2016 to get an aggregate WGI score. To compute the average WGI score of the project, we weighted each partner’s WGI score by their revenue share of the total project cost. We compute the distance using the absolute difference between the host country WGI score and the weighted average WGI score for the project organization. We compute a dummy variable (Distance,) that categorizes whether the project is below or above the average distance for all projects. Projects that are above the mean (e.g., have a larger distance score) are considered “far”.

Non-Competitive Procurement: Allocation of project contracts is used as a way to curry favor and build support from constituents (McLean, 2017). Project organizations that use procurement processes that are non-competitive to allocate project contracts may decrease the perception of overall fairness and transparency in the system, as well as increase economic inequity by providing contracts to a small set of stakeholders. The World Bank has 15 procurement categories across the procurement of goods, civil works, consultants, and non-civil work contracts. We labeled a procurement category as “non-competitive” if the category restricted

59 World Bank procurement categories changed in 2016. We reconciled procurement categories across the old and new schema to build our non-competitive measure. Pre-2016 categories include: Least Cost Selection, Quality and Cost-Based Selection, Quality Based Selection, Selection Based on Consultant’s Qualification, Selection Under a Fixed Budget, Service Delivery Contracts, Single Source Selection, Direct Contracting, Force Account, International Competitive Bidding, International Shopping, Limited International Bidding, National Competitive Bidding, National Shopping and Individual Selection (World Bank, 2011a, 2011b).
the pool of contractors who could bid for the project (e.g., *Limited International Bidding*) or directly selected a contractor without a bidding process (e.g., *Direct Selection*). As a robustness check, we measured non-competitive procurement with and without *National Competitive Bidding*, as this type of bidding restricts the pool of contractors at the country-level, but still utilizes a competitive bidding process. Results shown include *National Competitive Bidding* in the Non-Competitive category. We create a dummy variable (*Procurement Competition*) to distinguish whether the project’s largest was selected through a non-competitive or competitive procurement process.

**Conflict-Affected States**: States that are experiencing conflict may be more likely to experience the effects of elite bias, as existing tensions between stakeholder groups can be triggered or exacerbated. The categorization of conflict-affected states is not straightforward, and across most indices, measurement starts in 2006 (German Development Institute, 2010). We categorize states using two methodologies. We categorize conflict-prone states using the World Bank’s List of Fragile and Conflict-affected Situations. The World Bank categorizes affected situations into three categories: High-Intensity Conflict, Medium-Intensity Conflict, and High Institutional and Social Fragility (World Bank, 2020). These lists are generated using the presence of United Nations Peace-Keeping Missions or Political and Peacebuilding Missions as well as a measure of the Country Policy and Institutional Assessment (CPIA) score of the country. To measure conflict-affected states, we created a dummy variable (*Conflict-Affected*), that categorized whether a country was a High-Intensity or Medium-Intensity states in 2020. Additionally, as a robustness check, we used the time varying measure of *Political Stability / Absence of Violence* score from the World Governance Indicators as an alternate measure of conflict-affected states.

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60 See https://peacekeeping.un.org/en/data
This score ranges from 0-100 variable (*Absence of Violence*<sub>i</sub>) where values closer to 100 indicate less greater stability / less conflict.

*Other Independent Variables:* We follow past research on the local drivers of conflict by mapping our projects onto the geospatial structure of the PRIO-GRID dataset (Tollefsen, Bahgat, Nordkvelle & Buhaug, 2016). This map divides the world into 259,200 cells of exactly 0.5 decimal degrees latitude and longitude (approximately 50km X 50km at the equator) of which 64,818 cells contain more than 100 square meters of land. For each of the cells in the PRIO-GRID data in which our projects reside, we included one-year lagged time-varying independent variables that measure the impact of drought (*Drought*<sub>i</sub>) on crops as a measure of the percentage of consecutive months within the growing season with rainfall less than 1.5 standard deviations below the mean (Guttman 1999; McKee, Doesken & Kleist 1993), the count of politically excluded groups (*ExcludedGroups*<sub>i</sub>) (Vogt et al, 2015), the logged level of per capita Gross Domestic Product adjusted for purchasing power parity (*GDPPCPPP*<sub>i</sub>) (Nordhaus 2006), a country-level measure of government accountability (i.e., to what extent the ideal of government accountability is achieved) (*Accountability*<sub>i</sub>) using the Varieties of Democracy Index (Coppedge et al 2016), and a measure of the relative cliqueness (i.e., the extent to which it spans distinct groups of actors who share more in-group ties or is dominated by one or more such groups) of the IGO stakeholder network (*IGO-Cliqueness*<sub>i</sub>) (Henisz, 2019).

In order to examine whether the presence of an active project was associated with the effect of these variables, we focus our analysis on a comparison of regression results for years in which project was active (i.e., after it was approved by the World Bank Board) up to the year in which the project construction was completed or terminated. By exploiting this variation, we can better address concerns that unobserved factors at the project-location are driving changes in conflict and our independent variables of theoretical interest. The variation in these effects as
between years with and without an active World Bank project poses a more stringent test linking the active presence of the World Bank to the variation in the effect of these variables on the observed level of conflict.

Table 6 provides summary statistics and correlations for variables.

RESULTS

The primary specifications include cell-level fixed effects with standard errors clustered at the cell-level. We estimate results with a lagged dependent variable. Each of our models are run on years when the project organization is not in operation (Non-project Year) and when the project organization is in operation (Project Year). This allows us to compare results to determine if the effects seen are different during the years of operation of the project.

Table 7 summarizes the results of seven separate regression models designed to test the four hypotheses. Model 1 tests the base hypothesis of the relationship between \( COOPERATIONCONFLICT \) and \( Elite\: Bias-IGO \). Models 2 through 7 examines this relationship under conditions of Distance, Procurement Competition and Conflict-Affected, all after controlling for excluded groups, drought, government accountability, IGO cliqueness and GDP per capita. See Table 7.

Our baseline hypothesis suggests that greater elite bias in the IGO stakeholder network does drive greater conflict in the system overall during project years. Consistent with prior results (Henisz, 2019), the effect of \( Elite\: Bias-IGO \) is negative and significant (\( b = -0.032 \) and \( p < 0.01 \)).

Hypothesis 1 predicts that greater institutional distance between the project members and the host country context will exacerbate the effects of elite bias on conflict. Model 2 shows the relationship between \( Elite\: Bias-IGO \) and \( COOPERATIONCONFLICT \) under conditions of high institutional distance during non-project years and Model 3 shows this relationship under project
years. The coefficient of *Elite Bias-IGO* is not significant during non-project years \((b = -0.025 \text{ and } p > 0.10)\); however, it is negative and significant during project years \((b = -0.053 \text{ and } p < 0.05)\). In instances of institutional distance, the effect of elite bias on conflict is exacerbated.

Hypothesis 2 predicts that those projects whose largest project member is selected through non-competitive procurement will exacerbate the effects of elite bias on conflict. Model 4 shows the relationship between *Elite Bias-IGO* and *COOPERATIONCONFLICT* under conditions of non-competitive procurement during non-project years and Model 5 shows this relationship under project years. The coefficient of *Elite Bias-IGO* is not significant during non-project years \((b = -0.017 \text{ and } p > 0.10)\); however, it is negative and significant during project years \((b = -0.15 \text{ and } p < 0.05)\). In instances of non-competitive procurement, the effect of elite bias on conflict is exacerbated.

Hypothesis 3 predicts that those projects that take place in conflict-affected areas will exacerbate the effects of elite bias on conflict. Model 6 shows the relationship between *Elite Bias-IGO* and *COOPERATIONCONFLICT* in conflict-affected areas during non-project years and Model 7 shows this relationship under project years. The coefficient of *Elite Bias-IGO* is not significant during non-project years \((b = -0.044 \text{ and } p > 0.10)\); however, it is negative and significant during project years \((b = -0.21 \text{ and } p < 0.05)\). In countries already experiencing conflict, the effect of elite bias on conflict is exacerbated.

**Subsample Analysis and Robustness**

As a robustness check, we rerun our primary models without the lagged dependent variable. Results hold across all models. See Table 8.

Table 9 examines whether the conditions that exacerbate the effects of elite bias are compounded when examined jointly. To do so, we examine the combinations of distance and non-competitive procurement, distance and fragile states, and non-competitive procurement and
fragile states. We note the small sample size that results from combining conditions, but do find strong evidence that these conditions are compounded when examined jointly. When examined under conditions of distance and non-competitive procurement, distance and in conflict-affected states, and non-competitive procurement and in conflict-affected states, the coefficients of Elite Bias-IGO are negative and significant ($b = -0.34$, $b = -0.92$, $b = -1.01$). See Table 9.

We expect the IGO, in particular, the World Bank to bear the largest brunt of conflict occurring during the life of the project. We expect stakeholders to direct conflict towards the World Bank. To ensure that our measure is not just capturing the conflict directed towards the IGO, we examine all conflict except for conflict directed towards the IGO, as well as only conflict directed towards the IGO. We find that our results hold when we remove conflict directed at IGOs, as well as examine conflict directed at IGOs only. In examining all conflict except that of the IGO, we include a lagged independent variable of IGO conflict to better understand the mechanism and determine if the conflict that is occurring at a system level is “spillover” from the conflict directed towards the IGO. We do not find this spillover effect. See Tables 10 and 11.

We examine the effect size of our results to better understand the impact these factors have on conflict. For a one standard deviation change in our variable of interest, Elite Bias – IGO, the one-year effect size on our dependent variable, CooperationConflict, is small: for distant projects, non-competitive procurement, and fragile states, the predicted changes in CooperationConflict are -0.05, -0.12 and -0.17 (from a mean of 0.29 and standard deviation of 2.03). However, this measures only the one-year impact on CooperationConflict. Over the life of a project, the effect of Elite Bias-IGO may compound, and a one standard deviation change in Elite Bias-IGO can result in a more substantive change in our dependent variable. For example, a one standard deviation change in Elite Bias-IGO in conflict-affected states over eight years results in a predicted change of CooperationConflict of -1.16. When examining conditions jointly, this compounding effect becomes even more stark. A one SD change in Elite-Bias IGO
in conflict-affected states with distant project teams results in a predicted change in the conflict score of -5.06 after eight years, more than two standard deviations below the mean level. Table 12 shows the effect of Elite-Bias over time across main conditions and conditions examined jointly.

**CONCLUSIONS & DISCUSSION**

The primary contribution of this analysis is to extend past theory and research on the effect of development aid or elite bias of firms’ stakeholder networks on conflict to encompass the stakeholder network, composition and selection of World Bank project organizations. Specifically, we show that the composition and selection of partners that comprise World Bank project organizations, as well as the context in which these projects operate, exacerbate the effects of elite bias in the stakeholder network of World Bank funded projects on societal conflict. Past research has been mixed and non-conclusive on the effect of development projects on conflict in the context in which they operate (Flores & Nooruddin 2009). Scholars have shown that a primary driver of conflict is the unequal distribution of the rents that result from the projects (Dube & Vargas, 2013). Relative economic deprivation between stakeholder groups drives conflict between those groups (Gurr, 1970). We build on past work that examines the elite bias within the stakeholder network of business organization (Henisz, 2019) and show that this result manifests in World Bank project organizations in the years that those projects are operating. We further demonstrate that the composition of the project organization, the process of its selection and the environment in which it operates exacerbate the effect of elite bias on conflict. As such, we contribute to the contest (rapacity) theory of development as well as theories of horizontal inequalities which both argue that development projects may drive conflict in the environment in which they operate if they trigger competition or resentment among (identity) groups.
We examine institutional distance as a condition that exacerbates the effect of elite bias on conflict. Institutional distance has long been used as a measure of the understanding of norms, regulations, and behaviors in a host country context (Berry, Guillén & Zhou, 2010) which can contribute to the performance of an investment project, but institutional distance has yet to be tied as an explicit driver of conflict in the environment of that investment. We posit that a lack of understanding of existing tensions between stakeholders, as well as greater difficulty in building trust and cohesion with distant stakeholders, exacerbates the effect of elite bias on societal conflict. Dorobantu, et al (2019) in their study of financing syndicates examines how syndicate diversity—i.e., the distribution of differences within the syndicate—helps the syndicate overcome uncertain environments. Building on this work, a diverse project organization, that is a project organization comprised of partners with diverse and complementary capabilities, may help to address or mitigate the challenges of distance.

Second, we examine the type of procurement that the project organization uses. We find that non-competitive procurement also exacerbates the effects of elite bias: the project organization may provide contracts, and as such, rents, to a small stakeholder group through the use of procurement. Both the unequal provision of rents (Gurr, 1970), as well as the perception of unfairness in the process of allocation (Rawls, 1971) can impact the conflict experienced in the system. Past research has shown that project procurement and contract allocation is politically influenced (McLean, 2017), and connected firms can influence the disbursal of funds, despite evidence that disbursal is unjustified (Malik & Stone, 2018). Our work provides additional evidence of the risks of procurement processes that are not transparent and competitive. We note that the Bank does impose conditions on procurement in order to ensure corruption and unfair contract allocation is kept at bay (World Bank, 2019). However, as our study shows, non-competitive procurement continues to exist, and the ramifications are great to conflict in the system. Future work could and should examine the mechanisms that drive this effect, as there
may be cases where non-competitive procurement (and a relaxation of Bank conditions) are helpful to project performance. Identifying the strategies to mitigate the negative effects of this type of process (e.g., participatory decision-making during the process) may help to straddle the benefits of relaxed conditions on procurement and risks of non-competitive processes.

Scholars and practitioners alike have long-extolled the benefits of development aid on breaking the cycle of conflict in fragile and conflict-affected states (World Bank, 2019; Findley, 2018). Yet, the effect of development aid on reducing conflict in fragile and conflict-prone states is both predicated on certain conditions (Duponchel, et al 2017; Child, 2018; Sexton, 2018; Berman, Shapiro & Felter, 2011; Dreher, Klasen, Vreeland & Werker, 2013), and in other conditions, the development aid has been shown to have the opposite effect and increase conflict in these states (Crost, et al, 2014; Sexton, 2016). Through our study, we provide additional support for the argument that development projects might have the opposite effect as intended and promote conflict instead of peace. As such, we build on the work of Ganson, He and Henisz (2021), Oetzel, (2010) and Forrer & Katsos (2015) that examines the boundary conditions of business’ effect on peace-building. In particular, we add large-n empirical evidence to the largely qualitative studies highlighting the potential for business to trigger conflict (Drobhan 2010; Ganson, 2019; Bardoulle-Crema et al, 2013; Zandvliet & Anderson, 2009; Milkian & Schouten, 2019). Project operations in conflict-affected environments pose additional challenges for managers, and as such, attention on stakeholder participation and reducing elite bias in the network is critical for success.

In 1978, Marmostein wrote that the World Bank is “virtually oblivious to global human rights” in response to the Bank’s failure at the time to take countries’ human rights records into account and push regimes to make human rights’ changes as a condition for Bank lending. Though, over the last forty years, the Bank has played a significant role in the expansion of economic prosperity and associated improvement to human rights resulting from that prosperity,
the Bank still refrains from taking political-social factors into account in its lending (Shihata, 1988; Cissé, 2012). Yet, as shown by a growing body of research, investment strategies formulated without reference to horizontal inequalities (Stewart, 2000) may exacerbate conflict and undermine development objectives by the Bank and other lending bodies. Our work provides further evidence to this research by showing that elite bias, as well as the project’s composition and selection, exacerbate inequalities and promote conflict. Scholars have continued to argue that incorporating overtly political considerations into Bank lending is justifiable and necessary, especially in the treatment of human rights and criminal justice (Lemdjo, 2020), and research has shown that at times, Bank lending and contract allocation does take into consideration governance, rule of law, and political alignment (Winters, 2010; Kilby, 2013; McLean, 2017). Our research adds to the argument that ignoring considerations of the political and social dynamics of the development project, not only harms development outcomes, but also has the potential to instigate conflict. Thus, as past scholars have done, we urge the Bank to extend the terms of conditionality to incorporate overtly political considerations with demonstrable impacts on conflict and development outcomes (Woods, 2010; Santiso, 2001; Lemdjo, 2020; Winters, 2010).

It should be noted that the Bank does take into account corruption in its lending conditions, though corruption is considered through an economic lens, rather than a political lens (Lemdjo, 2020).
### Table 6: Summary Statistics and Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std Dev</th>
<th>Min</th>
<th>Max</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) COOPERATIONCONFLICT-ALL</td>
<td>0.29</td>
<td>2.03</td>
<td>-10</td>
<td>10</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) Elite Bias-IGO</td>
<td>1.17</td>
<td>0.79</td>
<td>0.18</td>
<td>13.43</td>
<td>-0.11</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) Excluded Groups</td>
<td>0.002</td>
<td>0.048</td>
<td>0.00</td>
<td>2</td>
<td>-0.02</td>
<td>0.00</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) Drought</td>
<td>0.042</td>
<td>0.046</td>
<td>0.00</td>
<td>0.69</td>
<td>0.06</td>
<td>0.00</td>
<td>-0.01</td>
<td>1.00</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>(5) Accountability</td>
<td>0.25</td>
<td>0.81</td>
<td>-1.886</td>
<td>1.95</td>
<td>-0.11</td>
<td>0.11</td>
<td>0.02</td>
<td>-0.02</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(6) IGO Cliqueness</td>
<td>1.22</td>
<td>1.27</td>
<td>0.00</td>
<td>19.52</td>
<td>-0.04</td>
<td>0.62</td>
<td>-0.01</td>
<td>0.00</td>
<td>0.12</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(7) GDPPCPPP</td>
<td>169</td>
<td>588</td>
<td>0.00</td>
<td>18097</td>
<td>-0.01</td>
<td>0.05</td>
<td>0.00</td>
<td>0.08</td>
<td>-0.01</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(8) Distance</td>
<td>23.0</td>
<td>13.7</td>
<td>0.00</td>
<td>70.15</td>
<td>0.14</td>
<td>0.00</td>
<td>-0.01</td>
<td>0.00</td>
<td>0.25</td>
<td>0.04</td>
<td>0.05</td>
<td>1.00</td>
</tr>
<tr>
<td>(9) Absence of Violence</td>
<td>26.6</td>
<td>18.3</td>
<td>0.00</td>
<td>99.03</td>
<td>-0.08</td>
<td>0.02</td>
<td>0.05</td>
<td>0.12</td>
<td>-0.05</td>
<td>0.08</td>
<td>0.39</td>
<td></td>
</tr>
</tbody>
</table>
Table 7: Results Predicting System-Level Conflict

<table>
<thead>
<tr>
<th>Predicting</th>
<th>Distance Nonproject Year</th>
<th>Distance Project Year</th>
<th>Non-competitive Nonproject Year</th>
<th>Non-competitive Project Year</th>
<th>Conflict States Nonproject Year</th>
<th>Conflict States Project Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elite Bias-IGO</td>
<td>-0.0321**</td>
<td>-0.0248</td>
<td>-0.0529*</td>
<td>-0.0174</td>
<td>-0.150*</td>
<td>0.0444</td>
</tr>
<tr>
<td></td>
<td>(-2.88)</td>
<td>(-1.46)</td>
<td>(-2.27)</td>
<td>(-0.41)</td>
<td>(-2.36)</td>
<td>(-0.95)</td>
</tr>
<tr>
<td>IGO-Cliqueness</td>
<td>-0.011</td>
<td>-0.0146</td>
<td>-0.0105</td>
<td>-0.0923+</td>
<td>-0.018</td>
<td>-0.0387</td>
</tr>
<tr>
<td></td>
<td>(-1.21)</td>
<td>(-1.21)</td>
<td>(-0.94)</td>
<td>(-1.66)</td>
<td>(-0.63)</td>
<td>(-0.80)</td>
</tr>
<tr>
<td>Drought</td>
<td>-0.274</td>
<td>-0.332</td>
<td>-0.332</td>
<td>-0.31</td>
<td>-0.761+</td>
<td>-1.185</td>
</tr>
<tr>
<td></td>
<td>(-1.86)</td>
<td>(-1.38)</td>
<td>(-1.22)</td>
<td>(-0.30)</td>
<td>(-1.66)</td>
<td>(-1.00)</td>
</tr>
<tr>
<td>GDPPCPPP</td>
<td>-2.09E-05</td>
<td>4.20E-05</td>
<td>2.73E-05</td>
<td>2.04E-06</td>
<td>-1.46E-05</td>
<td>-7.53E-04</td>
</tr>
<tr>
<td></td>
<td>(-1.24)</td>
<td>-0.47</td>
<td>-0.45</td>
<td>-0.04</td>
<td>(-0.52)</td>
<td>(-0.79)</td>
</tr>
<tr>
<td>Lagged COOPERATION CONFLICT-ALL</td>
<td>0.340**</td>
<td>0.298**</td>
<td>0.188**</td>
<td>0.246**</td>
<td>0.219**</td>
<td>0.389**</td>
</tr>
<tr>
<td>Accountability</td>
<td>-0.0213</td>
<td>-0.00705</td>
<td>-0.345**</td>
<td>0.0531</td>
<td>-0.246</td>
<td>-0.234**</td>
</tr>
<tr>
<td></td>
<td>(-0.71)</td>
<td>(-0.12)</td>
<td>(-4.84)</td>
<td>(-0.69)</td>
<td>(-1.37)</td>
<td>(-3.09)</td>
</tr>
<tr>
<td>Excluded Groups</td>
<td>-0.785**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-30.64)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Year: Y Y Y Y Y Y Y Y

_cons: 0.656** 0.552** 1.506** 0.868** 0.117 0.16 0.194

-16.17 -7.58 -4.58 -5.52 -0.22 -1.05 -0.69

N: 23080 6405 3844 1744 1293 1696 1030

t statistics in parentheses: + p<0.10, * p<0.05, ** p<0.01

**NOTE:** Fixed-effects by cell included in each specification. Standard errors clustered at cell-level.
Table 8: Results Predicting System-Level Conflict (No Lagged Conflict)

<table>
<thead>
<tr>
<th>Predicting Overall Conflict (No Lagged Conflict)</th>
<th>Baseline</th>
<th>Distance Nonproject Year</th>
<th>Distance Project Year</th>
<th>Non-competitive Nonproject Year</th>
<th>Non-competitive Project Year</th>
<th>Fragile States Nonproject Year</th>
<th>Fragile States Project Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elite Bias IGO</td>
<td>-0.0510**</td>
<td>-0.0135</td>
<td>-0.0663**</td>
<td>-0.0447</td>
<td>-0.176*</td>
<td>-0.0813</td>
<td>-0.228*</td>
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<tr>
<td></td>
<td>(-3.82)</td>
<td>(-0.71)</td>
<td>(-2.72)</td>
<td>(-1.00)</td>
<td>(-2.58)</td>
<td>(-1.46)</td>
<td>(-2.31)</td>
</tr>
<tr>
<td>IGO Cliqueness</td>
<td>-0.00299</td>
<td>-0.0173</td>
<td>0.00108</td>
<td>-0.0917</td>
<td>6.99E-05</td>
<td>-0.0138</td>
<td>0.0653</td>
</tr>
<tr>
<td></td>
<td>(-0.33)</td>
<td>(-1.41)</td>
<td>(-0.1)</td>
<td>(-1.71)</td>
<td>0</td>
<td>(-0.26)</td>
<td>(-0.62)</td>
</tr>
<tr>
<td>Drought</td>
<td>-0.404*</td>
<td>-0.323</td>
<td>-0.549</td>
<td>-0.168</td>
<td>-0.970*</td>
<td>-1.673</td>
<td>-2.47</td>
</tr>
<tr>
<td></td>
<td>(-2.51)</td>
<td>(-1.28)</td>
<td>(-1.96)</td>
<td>(-0.15)</td>
<td>(-2.13)</td>
<td>(-1.36)</td>
<td>(-1.94)</td>
</tr>
<tr>
<td>GDP</td>
<td>-2.16E-05</td>
<td>6.46E-05</td>
<td>3.41E-05</td>
<td>2.84E-05</td>
<td>-1.03E-05</td>
<td>-6.38E-05</td>
<td>0.00896**</td>
</tr>
<tr>
<td></td>
<td>(-1.14)</td>
<td>(-0.67)</td>
<td>(-0.49)</td>
<td>(-0.46)</td>
<td>(-0.30)</td>
<td>(-0.05)</td>
<td>(-2.72)</td>
</tr>
<tr>
<td>Accountability</td>
<td>-0.0177</td>
<td>0.0335</td>
<td>-0.458**</td>
<td>0.101</td>
<td>-0.292</td>
<td>-0.333**</td>
<td>0.181</td>
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<td>(-6.24)</td>
<td>(-1.09)</td>
<td>(-1.35)</td>
<td>(-3.28)</td>
<td>(-0.46)</td>
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<tr>
<td></td>
<td>(-42.93)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>_cons</td>
<td>0.849**</td>
<td>0.701**</td>
<td>1.801**</td>
<td>0.941**</td>
<td>0.199</td>
<td>0.415**</td>
<td>0.201</td>
</tr>
<tr>
<td></td>
<td>(-19.32)</td>
<td>(-9.31)</td>
<td>(-4.72)</td>
<td>(-5.95)</td>
<td>(-0.38)</td>
<td>(-2.76)</td>
<td>(-0.7)</td>
</tr>
<tr>
<td>N</td>
<td>23080</td>
<td>6405</td>
<td>3844</td>
<td>1744</td>
<td>1293</td>
<td>1696</td>
<td>1030</td>
</tr>
<tr>
<td>t statistics in parentheses</td>
<td>+ p&lt;0.10</td>
<td>* p&lt;0.05</td>
<td>**p&lt;0.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Fixed-effects by cell included in each specification. Standard errors clustered at cell-level.
Table 9: Results for Subsamples

<table>
<thead>
<tr>
<th>Predicting</th>
<th>Distance &amp; Non-competitive</th>
<th>Distance &amp; Non-competitive</th>
<th>Distance &amp; Fragile Nonproject</th>
<th>Distance &amp; Fragile Project Year</th>
<th>Non-competitive &amp; Fragile Nonproject Year</th>
<th>Non-competitive &amp; Fragile Project Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>COOPERATION CONFLICT-ALL</td>
<td>Nonproject Year</td>
<td>Nonproject Year</td>
<td>Nonproject Year</td>
<td>Project Year</td>
<td>Nonproject Year</td>
<td>Project Year</td>
</tr>
<tr>
<td>Elite Bias-IGO</td>
<td>0.0223</td>
<td>-0.339**</td>
<td>0.081</td>
<td>-0.915*</td>
<td>0.195+</td>
<td>-1.014**</td>
</tr>
<tr>
<td></td>
<td>-0.31</td>
<td>(-3.03)</td>
<td>-0.54</td>
<td>(-2.73)</td>
<td>-1.85</td>
<td>(-3.72)</td>
</tr>
<tr>
<td>IGO-Cliqueness</td>
<td>-0.0916**</td>
<td>-0.00471</td>
<td>-0.154</td>
<td>0.329</td>
<td>-0.212+</td>
<td>0.255</td>
</tr>
<tr>
<td></td>
<td>(-2.88)</td>
<td>(-0.15)</td>
<td>(-1.03)</td>
<td>-0.76</td>
<td>(-1.78)</td>
<td>-0.51</td>
</tr>
<tr>
<td>Drought</td>
<td>0.0849</td>
<td>-0.0728</td>
<td>-0.00723</td>
<td>3.132</td>
<td>-3.780+</td>
<td>-3.829</td>
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<tr>
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<td>-0.12</td>
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<td>(-0.00)</td>
<td>-0.43</td>
<td>(-1.70)</td>
<td>(-0.85)</td>
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<td>GDPPCPPP</td>
<td>8.79E-05</td>
<td>-1.28E-07</td>
<td>-0.00958</td>
<td>-0.214</td>
<td>-0.00112</td>
<td>5.39E-03</td>
</tr>
<tr>
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<td>-1.8</td>
<td>(-0.00)</td>
<td>(-0.49)</td>
<td>(-1.16)</td>
<td>(-1.44)</td>
<td>-1.68</td>
</tr>
<tr>
<td>Lagged COOPERATION CONFLICT-ALL</td>
<td>0.186**</td>
<td>0.277**</td>
<td>0.374**</td>
<td>-0.237</td>
<td>0.307**</td>
<td>-0.147</td>
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<td>-3.75</td>
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<td>-5.9</td>
<td>(-0.88)</td>
<td>-4.87</td>
<td>(-0.85)</td>
</tr>
<tr>
<td>Accountability</td>
<td>0.155</td>
<td>-0.0372</td>
<td>-0.337*</td>
<td>-4.896</td>
<td>-0.264*</td>
<td>-0.213</td>
</tr>
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<td>-0.63</td>
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<td>(-2.37)</td>
<td>(-1.54)</td>
<td>(-2.17)</td>
<td>(-0.15)</td>
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</tbody>
</table>

Excluded Groups

<table>
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<tr>
<th>Year</th>
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<th>Y</th>
<th>Y</th>
<th>Y</th>
<th>Y</th>
<th>Y</th>
</tr>
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<tbody>
<tr>
<td>_cons</td>
<td>0.301</td>
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<td>0.651</td>
<td>6.729+</td>
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<td>-0.72</td>
<td>-1.96</td>
<td>-1.61</td>
<td>-0.11</td>
</tr>
</tbody>
</table>

| N | 644 | 639 | 262 | 105 | 388 | 110 |

Note: Fixed-effects by cell included in each specification. Standard errors clustered at cell-level.
Table 10: Results Predicting System-Level Conflict with IGO Exclusion

<table>
<thead>
<tr>
<th>Predicting COOPERATION</th>
<th>Baseline</th>
<th>Distance Nonproject Year</th>
<th>Distance Project Year</th>
<th>Non-competitive Nonproject Year</th>
<th>Non-competitive Project Year</th>
<th>Fragile States Nonproject Year</th>
<th>Fragile States Project Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lagged COOP</td>
<td>0.00956*</td>
<td>0.00237</td>
<td>0.0150*</td>
<td>0.0324+</td>
<td>0.0216</td>
<td>0.0283+</td>
<td>0.0239</td>
</tr>
<tr>
<td>CONFLICT-IGO</td>
<td>-2.33</td>
<td>-0.37</td>
<td>-2.03</td>
<td>-1.86</td>
<td>-1.5</td>
<td>-1.92</td>
<td>-0.77</td>
</tr>
<tr>
<td>Elite Bias-IGO</td>
<td>-0.0283**</td>
<td>-0.0238</td>
<td>-0.0459*</td>
<td>-0.00718</td>
<td>-0.133*</td>
<td>0.0806</td>
<td>0.168+</td>
</tr>
<tr>
<td></td>
<td>(-2.60)</td>
<td>(-1.42)</td>
<td>(-2.03)</td>
<td>(-0.17)</td>
<td>(-2.23)</td>
<td>-1.61</td>
<td>(-1.82)</td>
</tr>
<tr>
<td>IGO-Cliqueness</td>
<td>-0.00923</td>
<td>-0.0132</td>
<td>-0.0101</td>
<td>-0.0936+</td>
<td>-0.0207</td>
<td>-0.043</td>
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</tr>
<tr>
<td></td>
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<td>(-1.09)</td>
<td>(-0.93)</td>
<td>(-1.71)</td>
<td>(-0.75)</td>
<td>(-0.93)</td>
<td>-0.52</td>
</tr>
<tr>
<td>Excluded Groups</td>
<td>-0.787**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drought</td>
<td>-0.27</td>
<td>-0.334</td>
<td>-0.29</td>
<td>-0.128</td>
<td>-0.696</td>
<td>-1.07</td>
<td>-2.387*</td>
</tr>
<tr>
<td></td>
<td>(-1.90)</td>
<td>(-1.42)</td>
<td>(-1.08)</td>
<td>(-0.14)</td>
<td>(-1.52)</td>
<td>(-0.98)</td>
<td>(-2.02)</td>
</tr>
<tr>
<td>GDPPCPPPP</td>
<td>-2.12E-05</td>
<td>3.70E-05</td>
<td>3.71E-05</td>
<td>-1.11E-05</td>
<td>-4.52E-07</td>
<td>-8.10E-04</td>
<td>0.00777*</td>
</tr>
<tr>
<td></td>
<td>(-1.26)</td>
<td>-0.42</td>
<td>-0.63</td>
<td>(-0.20)</td>
<td>(-0.02)</td>
<td>(-0.85)</td>
<td>-2.53</td>
</tr>
<tr>
<td>Lagged COOP</td>
<td>0.353**</td>
<td>0.319**</td>
<td>0.185**</td>
<td>0.216**</td>
<td>0.216**</td>
<td>0.381**</td>
<td>0.0937</td>
</tr>
<tr>
<td>CONFLICT-NO-IGO</td>
<td>-24.29</td>
<td>-10.41</td>
<td>-6.11</td>
<td>-5.87</td>
<td>-4.29</td>
<td>-10.76</td>
<td>-1.03</td>
</tr>
<tr>
<td>Accountability</td>
<td>-0.0128</td>
<td>0.0104</td>
<td>-0.341**</td>
<td>0.103</td>
<td>-0.257</td>
<td>-0.195*</td>
<td>0.21</td>
</tr>
<tr>
<td></td>
<td>(-0.45)</td>
<td>(-4.88)</td>
<td>(-1.34)</td>
<td>(-1.48)</td>
<td>(-2.60)</td>
<td>(-0.57)</td>
<td></td>
</tr>
<tr>
<td>_cons</td>
<td>0.607**</td>
<td>0.514**</td>
<td>1.360**</td>
<td>0.778**</td>
<td>-0.0135</td>
<td>0.0658</td>
<td>0.0997</td>
</tr>
<tr>
<td></td>
<td>-14.73</td>
<td>-6.93</td>
<td>-3.98</td>
<td>-5.09</td>
<td>(-0.02)</td>
<td>-0.45</td>
<td>-0.37</td>
</tr>
</tbody>
</table>

N  23054   6396   3842   1742   1293   1693   1027

t statistics in parentheses + p<0.10, * p<0.05; ** p<0.01

NOTE: Fixed-effects by cell included in each specification. Standard errors clustered at cell-level.
Table 11: Results Predicting Conflict Directed Toward IGO

| Predicting | Distance Baseline | Distance Distance | Non-competitive Noncompetitive | Non-competitive Noncompetitive | Fragile Fragile | Fragile Fragile |
| COOPERATION | CONFLICT-IGO | Nonproject Project Year | Year | Project Year | Year | Project Year | Year |
|Elite Bias-IGO| -0.109***| -0.0063| -0.154*| -0.242**| -0.290*| -0.610**| -0.512**|
| | (-3.65)| (-0.13)| (-2.31)| (-2.72)| (-1.99)| (-5.22)| (-3.16)|
|IGO-Cliqueness| -0.0479**| -0.0813*| -0.0392| 0.0255| 0.118+| 0.0238| 0.0582|
| | (-2.79)| (-2.53)| (-1.12)| | | | |
|Drought| 0.407| 0.357| -0.887| -0.994| -1.119| -4.085*| -0.097|
| | (-1.41)| | | | | | |
|GDPPCPPP| 2.46E-05| 6.20E-05| -5.13E-05| 8.82E-05| -9.25E-05+| 2.32E-03| -4.19E-03|
| | -0.86| -0.61| (-0.71)| | | | |
|Lagged COOP| 0.0123| -0.0261| -0.101**| -0.0649+| -0.0942*| 0.00366| -0.159**|
|CONFLICT IGO| -1.2| (-1.45)| (-4.08)| (-1.80)| (-2.36)| -0.1| (-3.29)|
|Accountability| -0.107| -0.0234| -0.0339| -0.656**| 0.986*| -0.849**| 0.00436|
| | (-1.79)| (-0.19)| (-0.32)| | | | |
|Excluded Groups| 1.531**| | | | | | |
|Year| Y| Y| Y| Y| Y| Y| Y|
|_cons| 2.821**| 2.948**| 4.956**| 2.699**| 1.221+| 3.191**| 2.103**|

N: 23080  6405  3844  1744  1293  1696  1030

NOTE: Fixed-effects by cell included in each specification. Standard errors clustered at cell-level.
Table 12: Predicted Values of Cooperation Conflict

<table>
<thead>
<tr>
<th>Value of COOPERATIONCONFLICT-ALL with 1 SD Change on Elite Bias-IGO</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
<th>Year 6</th>
<th>Year 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance</td>
<td>0.25</td>
<td>0.21</td>
<td>0.16</td>
<td>0.12</td>
<td>0.08</td>
<td>0.04</td>
<td>0.00</td>
</tr>
<tr>
<td>Noncompetitive</td>
<td>0.17</td>
<td>0.05</td>
<td>-0.07</td>
<td>-0.18</td>
<td>-0.30</td>
<td>-0.42</td>
<td>-0.54</td>
</tr>
<tr>
<td>Fragile</td>
<td>0.12</td>
<td>-0.04</td>
<td>-0.21</td>
<td>-0.37</td>
<td>-0.54</td>
<td>-0.71</td>
<td>-0.87</td>
</tr>
<tr>
<td>Distance &amp; Non</td>
<td>0.02</td>
<td>-0.25</td>
<td>-0.51</td>
<td>-0.78</td>
<td>-1.05</td>
<td>-1.32</td>
<td>-1.58</td>
</tr>
<tr>
<td>Distant &amp; Fragile</td>
<td>-0.43</td>
<td>-1.16</td>
<td>-1.88</td>
<td>-2.60</td>
<td>-3.32</td>
<td>-4.05</td>
<td>-4.77</td>
</tr>
<tr>
<td>Noncompetitive &amp; Fragile</td>
<td>-0.51</td>
<td>-1.31</td>
<td>-2.11</td>
<td>-2.91</td>
<td>-3.72</td>
<td>-4.52</td>
<td>-5.32</td>
</tr>
</tbody>
</table>

Appendix 1: Goldstein Scale

<table>
<thead>
<tr>
<th>Level of Conflict or Cooperation</th>
<th>Category Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Violent attack w/ actual or potential/intended deaths or serious injury</td>
</tr>
<tr>
<td>2</td>
<td>Threaten to violently attack w/ actual or potential/intended deaths or serious injury</td>
</tr>
<tr>
<td>3</td>
<td>Restrain, imprison, hold against will, blockade, arrest, expel, capture, sequester</td>
</tr>
<tr>
<td>4</td>
<td>Financially undermine deploy financial resources against (including sale of financial position at or below market price)</td>
</tr>
<tr>
<td>5</td>
<td>Threaten to financially undermine threaten/offer financial resources against(including sale of financial position at or below market price)</td>
</tr>
<tr>
<td>6</td>
<td>Oppose, veto, impose, force, break, halt, reject, flee, default on obligation, rally in opposition, overturn, lose, national political decision in opposition (e.g., Supreme Court, Parliament, President…)</td>
</tr>
<tr>
<td>7</td>
<td>Investigate, demand, alert, restrict, repeal of administrative, local or regional supportive policy</td>
</tr>
<tr>
<td>8</td>
<td>Deny, complain, criticize, denounce, negative comment, reject, accuse</td>
</tr>
<tr>
<td>9</td>
<td>Call for action, request assistance against, request information on</td>
</tr>
<tr>
<td>10</td>
<td>Neutral statement of fact</td>
</tr>
<tr>
<td>11</td>
<td>Yield, comply, solicit, request assistance with, vote for, am encouraged by</td>
</tr>
<tr>
<td>12</td>
<td>Mediate, agree, travel to meet, engage, offer, positive comment</td>
</tr>
<tr>
<td>13</td>
<td>Host, praise, empathize, apologize, forgive, assure, thanked</td>
</tr>
<tr>
<td>14</td>
<td>Agreement or receipt/provision of information</td>
</tr>
<tr>
<td>15</td>
<td>Rally in support, ratify, win election, policy decision in support (e.g., Supreme Court, Parliament, President…)</td>
</tr>
<tr>
<td>16</td>
<td>Offer financial support/defense/protection (including acquisition of a financial stake at market price or above)</td>
</tr>
<tr>
<td>17</td>
<td>Provide financial support/defense/protection (including acquisition of a financial stake at market price or above)</td>
</tr>
<tr>
<td>18</td>
<td>Relax/ease major financial or security penalty/sanction/constraint</td>
</tr>
<tr>
<td>19</td>
<td>Offer armed support/defense/protection</td>
</tr>
<tr>
<td>20</td>
<td>Provide armed support/defense/protection</td>
</tr>
</tbody>
</table>
CONCLUSIONS

This dissertation provides a contingent theory of the governance of the project organization. As such, this dissertation provides a foundation from which to develop a more complete view of the project organization, specifically, the relationships between the members of the organization, its relationships with its external stakeholders, and the relationship it has to its external environment. This dissertation begins to examine these relationships through the lens of critical mechanisms—conflict, communication, trust, and cohesion—that enable the project organization to be successful (Eccles, 1981). The project organization’s complexity, and the challenges that result from it, as well as its importance and prevalence as an organizational form, makes it a fruitful context to understand and explore.

A central theme of this dissertation is the effect that relative control (or deprivation) has on the functioning of the project organization. I examine financial disparity to better understand when the relative concentration of resources internally can help the project organization navigate other types of diversity; and examine the control that results from a more hierarchical governance in the project organization to better understand how the project organization can navigate uncertainty. Furthermore, the relative concentration of the project organization’s external stakeholder network drives conflict between stakeholder groups, and is exacerbated by other conditions. As long explored by sociologists, concentration of resources can have both positive (Tiedens & Fragale, 2003) and negative (Sidanius & Pratto, 2004) implications for a group. Thus, an important extension of this dissertation’s work on the project organization is to expand the concept of “organizational power,” the ability of the organization to control decisions (Salancik & Pfeffer, 1974), and what resources allow a member or members of the project organization to exert control over the others. Past work acknowledges status, size, type of ownership, and background (e.g., foreign), as sources of dominance and control (Beamish & Jung, 2005; Calantone & Zhao 2001). Furthermore, explicit decision-rights depending on the
member type or ex-ante design of the project organization may also elicit the mechanisms of control and conflict in the project organization (Kolltveit & Grønhaug, 2004; Sanderson, 2012; Van Marrewijk, et al 2016).

This dissertation examines diversity in the context of conflict between partners in the alliance, but does not explicitly determine the source and type of this conflict. A conflict incident may be a result of deviation from acceptable norms, a breach of trust, a competence-based failure, a failed communication, or confusion which partner should address an emergent problem (Habib, 1987; Zaheer, et al, 1988; Dirks, et al 2009; Ganesan, et al, 2010). There is a general assumption that conflict harms the project organization (Christofferson, 2013; Reus & Rottig, 2009), but as shown in my research, and aligned to micro-organizational behavior research (Pelled, et al, 1999), not all conflict is related to poor overall performance by the project organization. An important avenue of future research is better understanding the source of conflict, and subsequently its type (i.e., is it productive or unproductive conflict or task, relationship, or process conflict) to determine how project organizations can effectively mitigate and manage harmful conflict, while allowing (and encouraging) productive types of conflict. De Dreu (2008) argues that helpful, task conflict is constrained to a small set of conditions and that the costs of task conflict may outweigh its benefits. Thus, the additional exploration of the source and type of conflict that the project organization experiences, and causally linking this to time-varying performance measures will allow for an overall better understanding of conflict in the project organization and its impact.

Along with the antecedents of conflict, I hope to further explore how conflict is managed in the project organization once it does occur (Pondy, 1967; Janowicz-Panjaitan & Krishnan, 2009; Koza & Dant, 2007; Lumineau &. Henderson, 2012). The first chapter of this dissertation briefly begins to explore the resiliency of the project organization – specifically, why some projects may be better equipped to handle conflict when it does occur. I seek to expand this concept of resiliency in the project organization to understand the types of resiliency (e.g.,
bouncing back after a performance dip, or bouncing back after a conflict incident) and understand how formal and informal governance interact with each type of resiliency. Specifically, I look to explore under what conditions hierarchical governance helps (or hurts) resiliency, and under what conditions relational governance (trust between partners, presence of participatory and inclusive strategies), helps (or hurts) resiliency. Furthermore, partners in the project organization may build capabilities around managing conflict in these contexts from past conflict experiences, and be better equipped to support resiliency in future conflict incidents.

Lastly, scholars have long shown that the type of work being executed (Jehn, 1995), the industry (Williams & O’Reilly, 1998), and the competitive dynamic between partners (Park & Ungson, 1997) moderate conflict and diversity. The research context of this dissertation includes substantial heterogeneity in project organizations: project organizations vary on size (i.e., number of partners); industry; length of relationship (i.e., number of years); and the type of task that the project organization is brought together to execute. As seen in this dissertation, factors such as length and industry impact the core relationships examined. Yet, as past scholars have done (Zhang, et al 2017; Bechky, 2006) fully examining and understanding project organizations in a specific industry (e.g., venture capital) or completing a certain type of tasks (e.g., developing a creative product, knowledge-based work) will help to provide insight into the mechanisms behind many of the relationships explored in this dissertation.

In closing, this dissertation provides a foundation for a more comprehensive view of the project organization. In examining composition, governance, and conflict, this dissertation extends existing theory to better encompass the unique dynamics of the project organization and provides managers and multilaterals greater insight into what drives the success of these projects.


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Thompson, J. D. (1967). The synthetic organization. Organizations in Action: Social Science Bases of Administrative Theory; Thompson, JD, Ed, 52-54.


