COUNTERPOINT

Trevino and Doh's discourse-based view: Do we need a new theory of internationalization?

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Abstract

This counterpoint examines the relevance of Trevino and Doh's proposed new discourse-based view of internationalization for the field of International Business (IB). Trevino and Doh introduce their framework to address gaps in Internationalization Process Theory (IPT), which does not account for the underlying processes that lead to the initial managerial decision to internationalize. Framing our counterpoint around recent debates on how interdisciplinary research fields determine which new ideas to adopt, we explore whether the introduction of the discourse-based view adds sufficient novelty to justify the risk of fragmentation within IB. To stimulate debate around this question, we explore a number of issues, such as (1) whether the constructs found in the discourse-based view are distinct from pre-existing IB concepts, (2) the relative value of isolating the initial decision to internationalize within the broader internationalization process, and (3) the degree to which Trevino and Doh have isolated discourse as a primary mechanism driving the decision to internationalize. We conclude with a call for more dialog around the questions of how IB can embrace greater openness while still maintaining coherence and advancing collective knowledge.

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INTRODUCTION

Internationalization process theory (IPT) has become one of the foundational frameworks of international business (IB). Its intellectual founders, Johanson and Vahlne (1977), based their theory on the observation that firms often develop international operations in small, incremental steps, rather than as one large event at a single point in time. Trevino and Doh (2020) acknowledge the influence of IPT on IB research, but argue that it has come under criticism for being teleological, overly deterministic, and failing to explain managers' decisions to initiate the internationalization

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process. To fill this gap, Trevino and Doh propose a discourse-based view of internationalization that explores how the external context interacts with processes internal to the firm to generate an internationalization decision.

In this article, we provide a critical review of the discourse-based view, and evaluate its viability as a new IB paradigm. We frame our critique around an ongoing debate that is found within IB (Aguilera & Grøgaard, 2019; Delios, 2017; Devinney, 2010; Poulis & Poulis, 2018), as well as other related disciplines (Hirsch & Levin, 1999; Nag, Hambrick, & Chen, 2007; Pfeffer, 1993), about how we bring new ideas into interdisciplinary fields while still maintaining rigor and building a collective identity.

Drawing on this debate, our evaluation of Trevino and Doh's (2020) discourse-based view proceeds along the following steps. First, we provide a summary of both IPT and Trevino and Doh's proposed contribution to that theory, highlighting the strengths of the discourse-based view and examining how its inclusion might be fruitful for IB research. Second, we review current debates over the question of how scholarly communities strike an appropriate balance between novelty and discipline. Here, we argue that the introduction of a new idea into an interdisciplinary field, such as IB, provides an opportunity to bring new insights and solutions to existing challenges, but also creates the possibility for redundancy and fracturing (Hirsch & Levin, 1999; Pfeffer, 1993). Academic communities can mitigate this risk by carefully benchmarking new ideas against existing paradigms that have already gained consensus within their field. To initiate such an effort, we benchmark the discoursebased view against another well-established IB paradigm, the Evolutionary Theory of the Multinational Corporation (Kogut & Zander, 1993). We then examine the importance of the initial decision to internationalize within the broader IPT, and evaluate the degree to which the case studies that Trevino and Doh (2020) rely on - Google's failed Dragonfly Project in China and Bulova's international expansion - isolate discourse as the key mechanism that explains the outcomes in question. Finally, in the Discussion, we build on this critique to call for greater debate around the question of how IB can strike an appropriate balance between its rich interdisciplinary tradition and its need to build consensus, a common identity, and cumulative knowledge.

A BRIEF SUMMARY OF INTERNATIONALIZATION PROCESS THEORY AND THE DISCOURSE-BASED VIEW

Trevino and Doh (2020) present the discoursebased view as a solution to some of the deficiencies of IPT (Johanson & Vahlne, 1977), which argues that multinational corporations do not typically internationalize through a single large investment made at a specific point in time, but instead expand abroad through gradual steps. Psychic distance - or the combined perceived differences in language, culture, business practices, and other factors that exist between a company's home and target host country - explains this incremental approach to internationalization. Psychic distance limits the amount of knowledge the firm has, or can acquire, about the new country's markets, thereby increasing the uncertainty associated with internationalizing. To cope, firms expand first to countries with close psychic distance, and commit only limited resources, starting with exports before moving to sales subsidiaries, and manufacturing facilities. As the firm gains experience, it will gradually repeat the process in countries with greater psychic distance.

Trevino and Doh (2020) argue that IPT has come under fire for being overly teleological. That is, IPT - and other IB theories - explain internationalization in terms of its end, purpose, or goal, rather than the causes by which internationalization arises. Existing IB theories have thus become too deterministic and do not examine the initiation of the internationalization process. While subsequent research has pursued extensions to IPT, the literature has not resolved this core problem. To rectify this shortcoming, Trevino and Doh propose a discourse-based view of internationalization. They define "discourse" as all practices of writing and talking, but focus "less on the specifics of language itself and more on the coherence of the underlying concepts and ideas contained in a particular set of texts and their evolution through time" (Trevino & Doh, 2020: 2). In their view, the internationalization process is grounded in a dialogical conflict that plays out in the forms of knowledge acquisition, advocacy for certain positions, exertions of power, resistance, and ultimately consensus around internationalization as a solution to challenges facing the firm.

Their model occurs at three levels. At the first (contextual) level, stimuli from the environment

are assimilated into the internal discourse of the firm. At the second (dialogical) level, cues circulating from the external environment generate knowlabout how the intersection of the edge organization and its environment can be used to the firm's advantage. The newly acquired personal knowledge is then leveraged into power to overcome resistance and exert influence during struggles within the organization over the internationalization decision. At the third (textual) level, outcome texts that stem from the discourse lead either to continued resistance and non-action or to consensus and action on the internationalization decision.

The strength of the discourse-based view rests with its focus on micro-foundations and agency, which we agree are undertheorized in IB research. Trevino and Doh develop a strategic decision process model, where they suggest a need to examine the ability of firms to manage both their internal and external environments. They regard the dialogical process as a symbolic space that could enable firms to successfully reconcile and cocreate their environments. In doing so, firms may be able to balance any eventualities emanating from the external context. Bringing this more dynamic understanding into IB has the potential to contribute to several research streams. In our own work on international entrepreneurship, we have similarly found that the literature struggles to reconcile micro- and macrolevel perspectives that lead to entrepreneurial outcomes. For instance, our research looks at the impact of the weak state on entrepreneurship, while paying less attention to how entrepreneurs manage their own internal processes to actively manage those weak institutions (Ault, 2016; Ault & Spicer, 2014). Thus, our critique of Trevino and Doh (2020) revolves less around the question of whether new frameworks can benefit our interdisciplinary community and more on the question of how we bring new ideas into the field in a way that creates synthesis and advances cumulative knowledge.

INTEGRATION VERSUS FRAGMENTATION

We frame our critique of the discourse-based view within recent debates over the question of how scholarly communities integrate new ideas, constructs, and methods into their field (Hirsch & Levin, 1999; Kuhn, 1962; Nag et al., 2007; Pfeffer, 1993). IB is interdisciplinary, combining ideas not only from multiple business fields - such as

accounting, finance, management, and marketing - but also from other disciplines, such as economics, political science, and sociology (Cheng, Henisz, Roth, & Swaminathan, 2009; Journal of International Business Studies, 2020). The interdisciplinary nature of IB presents scholars with both opportunities and risks. On the one hand, an interdisciplinary approach is important because the phenomena we study are inherently complex and can often only be fully understood if we bring together diverse backgrounds (Cheng et al., 2009). For instance, many causal relationships we study are multilevel, since firms' actions are embedded in a local context. Therefore, integrating a research stream such as political science into existing IB research is likely to yield greater insights than single-disciplinary research could provide alone.

On the other hand, interdisciplinary research increases the possibility that the field will splinter into isolated groups with little communication or collaboration with others working on the same research questions (Hirsch & Levin, 1999; Nag et al., 2007; Pfeffer, 1993). According to Pfeffer (1993), such fracturing occurs because publishing is seen as riskier and more time-consuming in interdisciplinary fields, since articles can be sent to reviewers working on similar problems but with a different intellectual background from the author. This increases the possibility that the reviewers will disagree with the author on the important research questions, constructs, and methodologies. To mitigate this risk, researchers often form into small pockets that can reach a degree of consensus among themselves and serve as their own reviewer base.

Such fragmentation creates numerous barriers to the advancement of collective knowledge (Pfeffer, 1993). For example, it can lead to redundancy and time wasted reinventing already-existing ideas. In the absence of intra-field communication, an author working in one corner of the field can introduce a concept and claim it is new. So long as their group is unaware that others within the field are working on the same concept, multiple distinct literatures can form around the same ideas. Without oversight and gatekeeping, interdisciplinary fields often come to "resemble more of a weed patch than a well-tended garden. Theories...proliferate along with measures, terms, concepts, and research paradigms. It is often difficult to discern in what direction knowledge of organizations is progressing" (Pfeffer, 1993: 616).

We have seen this proliferation of competing ideas, and subsequent calls for greater unity, across many interdisciplinary fields. For example, in their review of strategic management research, Nag et al. (2007) write that academic fields are socially constructed and only exist so long as a critical mass of scholars agree that they do. For this consensus to happen, scholars must negotiate the boundaries of their field and adopt a shared understanding of what is allowed within those boundaries. Without this clear sense of collective identity and shared purpose, strategic management will become vulnerable to practical attack by other disciplines (e.g., for resources, journal space, tenure slots, and recruitment) and risks crumbling into obscurity. While Nag et al. (2007) welcome diversity, they caution that such diversity must always lead to eventual reconciliation and must work within members' conceptions of what will, and will not, be allowed within their shared community.

Within our own interdisciplinary field. Poulis and Poulis (2018) argue that IB scholarship has come to assume a kitchen-sink identity of "everything international," rather than unanimity of what matters in IB theorizing and clear demarcation of the field's boundaries. They observe that IB has progressed based on parallel monologues, yielding contradictions and unresolved paradoxes. This ad hoc approach to knowledge building has led to an ontology that is unclear, not only to external stakeholders but also to internal ones. In a crowded academic space, where IB must compete with other departments to attract young scholars and resources from university management committees, funding bodies, and practitioners, this confusion and a lack of a concrete identity puts the "legitimacy, and sustainability of international business at stake" (Poulis & Poulis, 2018: 517).

Aguilera and Grøgaard (2019) make a similar point, specifically about the conflicting conceptualizations within IB around the idea of institutions. They observe that various factions of IB scholars have developed their own notions of what institutions are and what mechanism explains their effect on business. For instance, the "institutional voids" bloc (e.g., Khanna & Palepu, 1997) draws on economics to explore how institutions impact transaction costs, while the "institutional profiles" bloc (e.g., Kostova & Roth, 2002) draws on sociology to explore how institutions provide meaning and guide human action and organization. This fractionalization has, in Aguilera and Grøgaard's (2019) view, led to the dual problems that: (1) IB authors use a different language to refer to the same concepts, and (2) they use the same language to refer to different concepts.

The observation that interdisciplinary research is prone to fragmentation and redundancy raises questions about how to integrate paradigms in a way that expands our horizons, while retaining our collective identity and boundaries. On the one hand, the search for novelty allows different perspectives to enter the field to challenge old or outdated ways of understanding familiar topics and theories. On the other hand, the need to build cumulative knowledge that allows researchers to draw on each other's work in applying shared constructs depends on a degree of consistency in ensuring that ideas fit together. Striking this balance usually involves a complex process of evaluating convergent and discriminatory validity around these ideas. In the absence of such attention to detail, a field can continuously shift, introducing new ideas without fully exploring how they build on or differ from previous ones, and creating "new labels for old bottles of wine" (Aguilera & Grøgaard, 2019: 31) instead of reaching a consensus over what is new and what is already established in any endeavor.

DISTINCTION FROM EXISTING RESEARCH

In applying these principles to Trevino and Doh's (2020) article, we first examine the degree to which the discourse-based view overlaps with existing frameworks and methodologies found in the IB literature. The authors benchmark their theory against the neo-institutional perspective (Kostova, 1999; Kostova & Zaheer, 1999; Xu & Shenkar, 2002). While neo-institutionalism may touch on questions related to internationalization (e.g., Xu & Shenkar, 2002), the framework was primarily designed to study an entirely different set of questions around the transfer of organizational practices between a parent company located in one country and its subsidiaries found in others (Kostova, 1999; Kostova & Roth, 2002). When the discourse-based view is compared to the neo-institutional perspective, it may appear to represent an advancement in our collective knowledge, since the two perspectives rely on different mechanisms, make different assumptions, and explain different phenomena.

However, when compared to other IB theories, it becomes less clear that the discourse-based view challenges outdated paradigms, rather than spinning off another faction within the field. One such literature that may provide an appropriate benchmark when assessing the contribution of the discourse-based view is Kogut and Zander's (1993) evolutionary theory of the multinational corporation (see also Zander & Kogut, 1995), which has become an established paradigm for IB research (Kogut & Zander, 2003; Tallman, 2003). We provide a comparison of the two perspectives on internationalization in Table 1.

In the first line of the table, we highlight the motivation of the two frameworks. Trevino and Doh seek to explain how dialogical conflict and power lead to an internationalization decision, whereas Kogut and Zander explore why the transfer of knowledge may occur within a firm through foreign direct investment, rather than across firms through licensing. As further shown in the table, the two theories share some similarities. Both perspectives are interested in bringing a more sociological approach to the question of why, and how, firms internationalize. Both theories also take

a less static view of internationalization to look at the interaction between macrolevel factors and managerial mindsets. And, importantly for this benchmarking exercise, they both rely heavily on the construct of "knowledge." In Trevino and Doh's (2020: 8) framework, "the internationalization process begins when actors acquire knowledge as to how the intersection of the organization and its environment can be used to the firm's advantage." Newly acquired personal knowledge is leveraged to strengthen an actor's power, as knowledge allows actors to use discourse to enable (or resist) strategy. Organizational actors who develop this personal knowledge will initiate the production and dissemination of a power-infused text to advance an international solution to the organizational challenge. In Kogut and Zander's (1993) framework, the firm represents a social community that builds knowledge over time that is both specific to that community and provides the firm with competitive advantages. The more tacit the knowledge, the harder it is to teach to those in another company

Table 1 Benchmark of the discourse-based view against the evolutionary theory of the multinational corporation

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	Discourse-based view of internationalization ^a	Evolutionary theory of the multinational enterprise ^b
Motivation	Explain how dialogical conflict and power lead to an internationalization decision	Explain why the transfer of knowledge may occur within a firm through foreign direct investment rather than between firms through licensing
Similarities	More sociological, less static approach to the study of internationalization; places "knowledge" at center	
Role of knowledge	Actors gain knowledge of the context via talk and text, which is then leveraged to strengthen their power in influencing the internationalization decision	The firm is a social community that builds knowledge over time, which provides it with competitive advantages. The more tacit the knowledge, the harder it is to transfer it to other firms, and the more likely the transfer will occur within the organization
Concept of knowledge	Intertextualized discourse that has become a personal belief	The competence of individuals and of the organizing principles by which relationships among individuals, groups, and members of an industrial network are structured and coordinated
Diffusion of knowledge	Internal actors exert power to achieve consensus and performativity	Occurs through increasing interactions until actors within the firm come to a common understanding
Nature of knowledge	Codified: can be acquired through an examination of organizational communications	Tacit: is only understood by those who are intimately acquainted with the innovation
Method for capturing knowledge for empirical analysis	Examine intracompany communication (e.g., e-mail, social media, electronic texts)	Identify innovations that reach a major share of the world market; administer an instrument to individuals with intimate understanding of the innovation about its codifiability, complexity, teachability, system dependence, and observability

^a Source: Trevino and Doh (2020)

^b Sources: Kogut and Zander (1993) and Kogut and Zander (1992)

that sit outside the social community. Thus, when a firm has built up a high degree of tacit knowledge, it is more likely to enter another country through the creation of a subsidiary, whose employees are part of the same social community, than through a licensing agreement with another company.

As further shown in Table 1, Trevino and Doh (2020: 13) draw on organization theory to conceptualize knowledge as "intertextualized discourse that has become a personal belief." In contrast, the evolutionary theory has already established knowledge for IB as "the competence of individuals and of the organizing principles by which relationships among individuals, groups, and members to an industrial network are structured and coordinated" (Zander & Kogut, 1995: 77). In evolutionary theory, the type of knowledge that is important in internationalization relates more to "know how" and "know why" than it does to "know what." Table 1 further shows that the two frameworks rely on a different mechanism to explain the transfers of knowledge in the organization. Trevino and Doh rely on power, which internal actors exert to achieve consensus and performativity. In contrast, Kogut and Zander (1993) rely on social mechanisms. In their framework, the spread of knowledge occurs through increasing interactions until actors within the community come to a common understanding about the nature and value of an innovation.

The last two rows of Table 1 deal with the way knowledge is captured for empirical analysis. Trevino and Doh (2020) assume that knowledge can be made explicit, codified, and understood. Thus, the discourse-based view can be tested through an examination of texts - such as e-mails, memos, instant messages, and social media - generated by key players within the company. Given the proliferation of digital communication, empirical tests of the framework will be "relatively easy and amenable to systemic analysis" (Trevino & Doh, 2020: 12). In contrast, evolutionary theorists are clear that tacit knowledge is typically inaccessible to others outside the social community. As Kogut and Zander (1992: 383) state "A fundamental puzzle, as first stated by Michael Polanyi (1966), is that individuals appear to know more than they can explain." A major league baseball player may possess the "know how" to lay down a perfect bunt, and a FIFA player may possess the "know how" to bend a corner kick into the goal (as well as the understanding of when to use these skills), but find it impossible to explain these abilities to those outside baseball or soccer. Nor is this knowledge likely to become easier to codify and

teach to others over time, since it is a skill that is gained only through experience.

Evolutionary theorists thus began their agenda with the assumption that "know how" may be unknowable and spent decades developing sophisticated methodologies to capture something that is inaccessible to the researcher. For example, rather than trying to understand the knowledge that explains internationalization themselves, Zander and Kogut (1995) identified 35 Swedish innovations that reached a major share of the world market (see Wallmark & McQueen, 1986). They then constructed an instrument around Winter's (1987) five dimensions of a firm's capabilities: codifiability, teachability, complexity, system dependence, and product observability. After establishing the initial validity and reliability of the instrument through pilot tests, they administered it to individuals involved with developing the technologies and who had an intimate understanding of the innovations. They themselves did not identify the attributes of the knowledge, but instead asked the subjects to rate statements about the knowledge such as "A useful manual describing our manufacturing process can be written," or "Educating and training new manufacturing personnel is a quick, easy job" (Kogut & Zander, 1993: 641).

Despite the work that has gone into the development, measurement, and empirical application of "knowledge" as a core IB construct, Trevino and Doh (2020) present knowledge as something new and unique to the discourse framework. Without synthesis and reconciliation with other IB paradigms, the discourse-based view may thus increase the risk for a similar proliferation of multiple conceptualizations around knowledge that Aguilera and Grøgaard (2019) identified with institutions.

While our focus has centered on the potential overlaps between the discourse-based view and the Evolutionary Theory of the Multinational Enterprise, similar arguments can be made about other key constructs found in Trevino and Doh's (2020) framework. For example, these authors also introduce language and communication as core concepts in their theory, with only limited engagement with other IB groups that study similar ideas (Brannen, Piekkari, & Tietze, 2017; Selmier II, Newenham-Kahindi, & Oh, 2015). Our own work has identified language and communication (e.g., semiotics, symbols, etc.) as a main challenge to MNEs to share their HQs accepted languages with their regional and other subsidiaries (Selmier et al., 2015). These existing concepts raise questions

about whether Trevino and Doh's (2020) work on discourse amounts to a new "view" of the MNE that existing frameworks cannot accommodate.

These examples suggest that establishing the discriminant validity of the discourse-based view may be more difficult than Trevino and Doh (2020) claim. Moreover, new frameworks that overlap with existing ideas must address the same empirical challenges identified in the previous work, acknowledge their proposed solutions to those challenges, and be subjected to similar tests as those developed by previous researchers. Without engaging in the work necessary to reconcile new ideas with other preexisting paradigms, the new paradigms threaten to overturn entire research streams that are central to our field.

Recombining Existing Theories

Some IB scholars have observed that the field can gain the benefits of new insights, with less risk of fragmentation, by recombining existing ideas in novel ways, rather than through the introduction of completely new ideas (Stevens & Newenham-Kahindi, 2021). Thus, in addition to benchmarking new ideas against existing theories, a second question to ask before integrating new concepts into our community is whether a recombination of paradigms that already exist can be adapted to address the new situation. To illustrate, we draw on our study of MNE strategy and corruption in developing countries (Stevens & Newenham-Kahindi, 2021). Despite the new context, we discovered that we did not need to introduce new theory to understand how MNEs manage corruption. Instead, we could explain this outcome by synthesizing the existing literature in a new way. While the conventional literature assumes that firms have two options for managing corruption in weak institutional environments either "play the game" (i.e., pay the bribes) or "leave the table" (i.e., avoid countries where corruption is widespread) – we uncovered a new approach, which we term an "engagement strategy," which involves committing to deeper, larger, and more long-term investments, even in host countries where corruption is pervasive.

While these findings were surprising, the more we probed, the more we understood that the conceptual mechanisms underpinning the success of these engagement strategies could be explained using a confluence of existing IB research on legitimacy (Kostova & Zaheer, 1999), bargaining power (Ramamurti, 2001), and political risk (Puck, Rogers, & Mohr, 2013). MNEs are often held to higher expectations than their local competitors, suggesting the need for a more nuanced understanding of the legitimacy of certain acts and of the actors engaging in those acts. However, MNEs seeking an engagement strategy also have the bargaining power to gain legitimacy through noncorrupt means, even in locations where corruption is pervasive. We also found that MNEs which provided substitutes for bribes (e.g., gifts, zerointerest loans) that benefit a larger number of hostcountry actors were able to significantly minimize their political risks and the pressure to pay a bribe. While this novel finding may have led some researchers to seek for a new theoretical framework, we found we could explain it through a combination of existing IB theories, thus satisfying both goals of developing important new insights and retaining consensus within the field.

To be clear, we are not advocating for IB to abandon its interdisciplinary approach. Despite his concerns, Pfeffer (1993) sees strong benefits to interdisciplinary research, and Cheng et al. (2009) are correct that some of the questions we ask in our field can only be answered by bringing together different views and perspectives. Indeed, much of our own research is interdisciplinary, drawing from developmental economics and political science as well as international business (Ault & Spicer, 2020a). However, in science, the words we use matter; in empirical studies, consistent terminology is important to ensure the tests we conduct capture what they purport to be measuring. Thus, if researchers within the same field do not talk to each other, and there is no communication over what our constructs mean. then there can be no cumulative knowledge. We argue that future research will be needed to examine the discourse-based view in tandem with other preexisting literatures. Otherwise, questions remain as to whether it complements existing theories, defines the scope conditions for those theories, or simply puts a new label on established ideas.

OUTCOMES VERSUS INITIAL DECISIONS

Trevino and Doh (2020) state that their goal is to develop a theory around the decision to internationalize. As they write, "We conceptualize a model that emphasizes the embeddedness of organizational discourse in social, political, and historical contexts and allows us to trace the dialectical processes that motivate the decision to internationalize." Thus, an important question when assessing the value of expanding the IB lens to include the discourse-based view is whether the benefit of studying the initial managerial decision to internationalize outweighs the risks of splitting off a new IB faction.

Trevino and Doh (2020) are correct that IB scholarship tends to focus more on the practices, business models, and firms that survive over time than on initial decisions. For instance, Johanson and Vahlne (1977) define their framework as a "process theory." Process theory "is concerned with understanding how things evolve over time and why they evolve in this way" (Langley, 1999: 692). Process theories rely on different strategies, logics. and methods from what are referred to as variance theories. "Whereas variance theories provide explanations for phenomena in terms of relationships between dependent and independent variables, (e.g., more of X and more of Y produce more of Z), process theories provide explanations in terms of the sequence of events leading to an outcome (e.g., do A and then B to get C)" (Langley, 1999: 692). Johanson and Vahlne's (1977) process theory explores how managers cope with unforeseen events after the internationalization decision is made. As they state, "Many firms consider internationalization a promising strategy. There are, however, numerous examples of firms which have started international operations without success" (Johanson & Vahlne, 1977: 31).

Similarly, the neo-institutional theory that Trevino and Doh (2020) benchmark their framework against relies on a fit mechanism. A firm may decide to transfer a practice to a foreign subsidiary, but if that practice does not subsequently fit with the prevailing regulatory, cognitive, and normative dimensions of a country's institutional profile, it will not survive (Kostova, 1999; Kostova & Roth, 2002; Kostova & Zaheer, 1999). The evolutionary theory of the multinational builds on a similar idea of both success and failure. In this view, internationalization depends not only on the decision of the manager to retain knowledge within a single organization but also on the difficulty of trying to communicate that knowledge to those outside their social community (Kogut & Zander, 1993). The core idea is that firms incrementally build the capabilities over time to enable successful transfer, independent of any actor's initial desires.

Yet, at the same time that Trevino and Doh are highlighting a need to study managers' initial decision to initiate an action, authors in IB and other related business fields are calling for less emphasis on this aspect of business action (Aldrich & Fiol, 1994; Aldrich & Ruef, 2006, Van Lent, Hunt, & Lerner, 2020). For example, in their review of the entrepreneurship literature, Van Lent et al. (2020) write that "entrepreneurship research is strongly predisposed towards capturing the intentional aspects of entrepreneurial action", and that the literature "unnecessarily constrains itself to the governing premise that entrepreneurial action ubiguitously emanates from reasoned intentionality." While they agree that early reasoning plays a role, this disproportionate emphasis on initial decisions yields "a heavily censored, and therefore incomplete, recounting of the business venturing process." They thus call for researchers to focus less on intentionality and instead examine the multitudinous ways that business is guite literally a journey. and that "all journeys have secret destinations of which the traveler is unaware." This metaphor of business as a journey is repeated in IB. In defending the teleological view of internationalization, Forsgren (2002) suggests that foreign direct investment can be seen as a proactive search for opportunities. From this perspective, the firm may start with a defined goal, but knows that the pathway to that goal is uncertain, discontinuous, and unpredictable. Firms will thus engage in internationalization in search of opportunities knowing that subsequent conditions will cause many of these endeavors to depart radically from predicted pathways. To these authors, it is not about where the journey starts, but the winding road it follows.

In their review of research on organization theory, Aldrich and Ruef (2006) differentiate between intentional and blind variation. Intentional variation occurs when managers actively seek solutions to problems. Intentional variation results from planning, consultations with experts, and so forth. Blind variations are not intentional, but instead arise from accidents, chance, luck, malfeasance, and so forth. Like previous authors, Aldrich and Ruef (2006) argue that research has historically emphasized intentional variation too heavily, focusing on the creativity, planning, and decisions of the company's key actors, rather than on how organizations deal with the blind variance that influences the success of their enterprise over time.

When applied to the discourse-based view, these observations suggest that the addition of a new research stream that emphasizes initial managerial decision-making may unnecessarily convolute an already crowded discipline, while adding limited new insights that change the way we think about our core questions. An actor may initiate an action, but the subsequent conditions they encounter

Illustrative Case Study: Target Canada

often decide what design becomes selected.

To illustrate the relative importance of subsequent conditions in selecting the practices, business models, and firms that survive over time, we examine Target Corporation's 2013 entry into Canada (Dahlhoff, 2015: Pirouz & Hong, 2014). Target found it easy to build internal consensus around its decision to enter the country for several reasons: (1) Canada and the US are culturally, politically, and economically similar, (2) Target had reached a degree of cult status within Canada and many Canadians would travel to the US to shop there, (3) other US retailers - including Walmart, Costco, and the Home Depot - had already experienced success in the country, and (4) Target is headquartered only about 250 miles from the Canadian border (Dahlhoff, 2015; Pirouz & Hong, 2014).

However, while building consensus around the decision to enter Canada was relatively easy, the subsequent blind variance and Target's inability to cope with these factors ultimately led to its demise. Less than two years after entering Canada, and after accumulating US\$2.5 billion in losses, Target closed its 133 Canadian stores and exited the country. Several factors explain this outcome. For instance, when Walmart made the decision to enter Canada in 1994, local retailers were caught off guard and failed to respond, thus providing Walmart with only soft competition. In 2013, Canadian retailers were better prepared for foreign competition. Additionally, Target decided to buy Zellers stores rather than build new retail outlets - that were run down, located in low-income neighborhoods, and poorly configured for Target's big-box layout. Moreover, because Target set aggressive deadlines, its software was not ready for the launch (e.g., it could not handle French-specific letters), thus leading to shipping mistakes. Consequently, the large, excited crowds that lined up for hours on opening day were turned off by the mostly empty shelves (Dahlhoff, 2015; Pirouz & Hong, 2014). Despite managers' strong desires to enter the Canadian market, this action ultimately failed in the face of subsequent missteps and inability to respond to the conditions of the Canadian market.

Consistent with Van Lent et al. (2020), we do not claim that initial judgements played no part in the overall story of Target's rise and fall in Canada. In this case, however, the stronger role of subsequent, unforeseen conditions in impacting the company's survival over the long run raises questions of what new insights we would have gained from a study of Target's initial decision to enter Canada. Questions such as these will need to be answered before adopting the discourse-based view openly.

EVIDENCE FOR THE DISCOURSE-BASED VIEW

To further evaluate our previous question about whether the discourse-based view leads to new insights, rather than a reinterpretation of existing phenomena, we now turn to Trevino and Doh's (2020) decision to use Google's failed Dragonfly Project in China and Bulova's global expansion as evidence to support the discourse-based view. We argue that future research will be necessary to both isolate discourse as the central mechanism in these cases and to generalize from these examples to other multinational corporations. We focus on Google's failed Dragonfly project to illustrate this point. Li's (2019) work on Western Internet Firms (WIFs) in China suggests that the causes of Google's failure may be both multifaceted and specific to this country and industry, limiting not only the application of the case study to other situations but also the ability to identify discourse as the primary explanation for Google's experience. Li (2019) argues that all WIFs - including Google, eBay, Amazon, Airbnb, LinkedIn, WeWork, and Uber have failed in the Chinese market. While we could debate his premise that these firms failed, insofar that they have left China, he provides strong evidence that they have at least underperformed. Li identifies this finding as surprising, because these same companies saw much greater success in other countries that are politically and economically similar to China, such as Indonesia, Thailand, and Saudi Arabia. Moreover, many non-internet-based companies - such as automobile manufacturers, fast food restaurants, and beer brewers - have been more successful than internet firms in China.

Even among WIFs, Li (2019) found it hard to attribute their collective underperformance to any one cause. Instead, their experience was due to the cumulative effects of multiple factors over time, or what Li (2018: 4) refers to as "death by a thousand cuts." Drawing on 225 interviews, he found 13 conditions that created a perfect storm and put these firms at a competitive disadvantage. These included attempts to impose global business models unsuited to the Chinese market, overly centralized organizational structures, underestimating the differences between digital businesses and other industries, and failure to account for aggressive local competitors.

Trevino and Doh's (2020) reliance on Google's Dragonfly Project to support their discourse-based view thus raises the possibility of what authors refer to as "superstitious learning" (Kogut, 1991; McGrath, 2011; Szulanski, Cappetta, & Jensen, 2004). Superstitious learning occurs when two events take place in connection to one another and, due to their visibility and correlation, researchers incorrectly identify them as causally related. While a lack of consensus within Google may have been a present condition in the Dragonfly Project, this does not mean that it was either necessary or sufficient to explain Google's experience.

We refer to our work on state fragility to further illustrate the possibility of superstitious learning (Ault, 2016; Ault & Spicer, 2020a, b). Historically, studies that looked at the impact of the state on entrepreneurship in developing countries strove to isolate a single state function, such as the control of corruption, to explain entrepreneurial outcomes. Since corruption is negatively and significantly correlated with business activity, it appeared obvious that the best way to stimulate entrepreneurship within a developing country is to improve the state's control over corruption. However, a problem with this conclusion is that a country that is unable to control corruption is often also unlikely to provide other services that are necessary for business, such as public security (e.g., adequate policing) or social welfare (e.g., free and universal education). The simultaneous breakdown of the state across multiple functions makes it difficult to disentangle the effects of corruption from these other possible conditions to conclude definitively that countries that reduce corruption will see a rise in entrepreneurship.

Several authors have argued that the way to mitigate superstitious learning, and to isolate a causal factor or configuration of causal factors, is to engage in counterfactual analysis (Fiss, 2007, 2011; Ragin, 2008). Counterfactual analysis looks at what would have happened if the claimed causal condition were to be changed. If the outcome can be expected to also change, then the researcher has greater confidence that they have isolated the causal mechanisms (Fiss, 2007). For instance, in the case of Dragonfly, a counterfactual analysis would ask whether the outcome would have been different had the company gained greater consensus through their discourse. Li's (2019) finding that

all WIFs underperformed in China suggests that the outcome would still be the same. While we can assume that all WIFs engaged in discourse before making the decision to expand into China, we cannot assume that the common thread in their experience was an inability to reach a degree of internal consensus.

In fact, a case could be made that Google provides more empirical support for Johansson and Vahlne's (1977) internationalization process theory than it does for Trevino and Doh's (2020) discourse-based view, since the company's underperformance in that country relates to a constellation of differences between Google's home and host countries (which may fit better with the concept of psychic distance).¹ To establish causation, future research will need to identify a case that is similar to the Dragonfly project (e.g., one launched by a similar company in a country similar to China), except that it shows stronger coherence around the project within the organization, and that it is an example of successful internationalization. Trevino and Doh suggest that counterfactual analysis may be beneficial. However, they do not directly compare their cases using this method. Nor do they identify alternative cases of companies that differ on both the causal and outcome conditions to isolate discourse as either necessary or sufficient to explain their phenomena. Instead, they provide an interpretation of these cases, rather than using them to isolate the steps and mechanisms that are involved in the observed outcome.

DISCUSSION

In this counterpoint, we suggested that Trevino and Doh's (2020) introduction of a discourse-based view of internationalization provides an opportunity for us to take a step back and critically evaluate the more fundamental question of how we as a community will strike a balance between rigor and consensus on the one hand and novelty on the other. Hirsch and Levin (1999: 199) note that this kind of reflection and dialectic is beneficial, if not necessary, for knowledge to advance, since interdisciplinary fields must walk a fine line between "theoretical tyranny" and "an anything goes attitude." In their view, the ongoing struggle between the "validity police" - or those that believe in academic discipline and rigidity - and the "umbrella advocates" - or those that believe in openness - often leads to an appropriate balance that allows fields to be both scientific and relevant.

We already see this debate taking shape in IB (Buckley, 2002; Delios, 2017; Devinney, 2010; Poulis & Poulis, 2018). For instance, Stahl, Tung, Kostova, and Zellmer-Bruhn (2016) adopt the umbrella advocacy side to call for IB scholars to widen the IB lens, to look at commonly considered phenomena in new ways, and to introduce or highlight new concepts; Devinney (2010) calls for IB researchers to "stretch the boundaries" of our field and work more directly with other disciplines; and Delios (2017) argues that IB has been hampered by its narrow focus on only a handful of topics related to the MNC. On the other side of the debate, Aguilera and Grøgaard (2019) take a validity police approach to call for IB scholars to better anchor their ideas within existing concepts, carefully define the boundaries of theorizing, align those conceptual definitions with an appropriate empirical identification that enhances internal validity, and explore the external validity of the proposed mechanisms. Poulis and Poulis (2018) write that IB needs to stop identifying itself as "everything international," and instead create a stronger identity that draws clearer lines that separate our field from others.

Rather than discouraging or ignoring this tension, we encourage IB scholars to embrace it. In this light, Trevino and Doh's (2020) discourse-based view provides an arena where such a debate can play out. To stimulate this debate, we have highlighted some of the steps that we believe will need to be taken before we adopt this framework into our community. Our core argument is that additional research will be required to ensure that the discourse-based view complements existing IB paradigms, rather than becoming a source of further confusion. For example, future research can establish the benefits of this view, relative to its costs, by further benchmarking and reconciling its key ideas against related, pre-existing IB concepts and paradigms. Trevino and Doh (2020) compare their framework to neo-institutionalism, but we argue that this framework may be incommensurable to the discourse-based view because it seeks to explain different phenomena. We thus call for additional benchmarking and synthesis of the discourse-based view against other, more relevant frameworks, including not only the literatures discussed in this counterpoint, such as the evolutionary theory of the multinational corporation (Kogut & Zander, 1993) or work on language and communication (Brannen et al., 2017; Selmier et al., 2015), but also other common IB paradigms, such as the sensemaking perspective on international performance (e.g., Nadkarni, Herrmann, & Perez, 2011) or subsidiary-specific advantages in multinational enterprises (e.g., Rugman & Verbeke, 2001).

Another critical step in evaluating the efficacy of the discourse-based view as a potential IB paradigm is to examine whether the initial decision to internationalize is sufficiently important to outweigh the potential cost of further fragmentation and segmentation of the field. Additionally, the testing of their framework will likely require more rigorous methodologies than those that Trevino and Doh (2020) propose. Rather than solely examining historical texts generated among key players within the organization, IB scholars will need to turn to the rigorous methodologies established in other related research streams, such as those developed by evolutionary theorists described above and in Table 1 (Zander & Kogut, 1995).

Finally, we call for IB researchers to resist the pursuit of novelty solely for the sake of novelty itself. Pfeffer (1993) acknowledges that academic journals have a bias toward new ideas. Moreover, coining a new term is often seen as a pathway toward fame. However, the benefits of such pursuits for individual recognition may come at the expense of consensus, cumulative knowledge, and progression of the field. All research fields need to be open to the integration of new concepts to prevent stagnation. However, the benefits of introducing a new idea needs to be weighed against the cost of more isolation and less ability to communicate ideas among scholars. Thus, while we have argued that existing internationalization theories may benefit from Trevino and Doh's (2020) discoursebased view, we welcome debate over the question of whether the benefit of widening the lens is greater than the risk of further disintegration.

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NOTES

¹We thank an anonymous reviewer for this observation.

REFERENCES

- Aguilera, R., & Grøgaard, B. 2019. The dubious role of institutions in international business: A road forward. *Journal of International Business Studies*, 50(1): 20–35.
- Aldrich, H. E., & Fiol, C. M. 1994. Fools rush in? The institutional context of industry creation. Academy of Management Review, 19(4): 645–670.
- Aldrich, H. E., & Ruef, M. 2006. *Organizations evolving* (2nd ed.). Los Angeles: SAGE.
- Ault, J. K. 2016. An institutional perspective on the social outcome of entrepreneurship: Commercial microfinance and inclusive markets. *Journal of International Business Studies*, 47(8): 951–967.
- Ault, J. K., & Spicer, A. 2014. The institutional context of poverty: State fragility as a predictor of cross-national variation in commercial microfinance lending. *Strategic Management Journal*, 35(12): 1818–1838.
- Ault, J. K., & Spicer, A. 2020a. The formal institutional context of informal entrepreneurship: A cross-national, configurationalbased perspective. *Research Policy*. https://doi.org/10.1016/j. respol.2020.104160.
- Ault, J. K., & Spicer, A. 2020b. State fragility as a multidimensional construct for international entrepreneurship research and practice. Asia Pacific Journal of Management, 37(4): 981–1011.
- Brannen, M. Y., Piekkari, R., & Tietze, S. 2017. The multifaceted role of language in international business: Unpacking the forms, functions and features of a critical challenge to MNC theory and performance. *Journal of International Business Studies*, 45(5): 495–507.
- Buckley, P. J. 2002. Is the international business research agenda running out of steam? *Journal of International Business Studies*, 33(2): 365–373.
- Cheng, J. L., Henisz, W. J., Roth, K., & Swaminathan, A. 2009. From the editors: Advancing interdisciplinary research in the field of international business: Prospects, issues and challenges. *Journal of International Business Studies*, 40(7): 1070–1074.
- Dahlhoff, D. 2015. Why Target's Canadian Expansion Failed. *Harvard Business Review*. Retrieved January 20, 2015, from https://hbr.org/2015/01/why-targets-canadian-expansion-failed.
- Delios, A. 2017. The death and rebirth (?) of international business research. *Journal of Management Studies*, 54(3): 391–397.
- Devinney, T. M. 2010. *The past, present and future of international business and management*. Bingley: Emerald Group Publishing.
- Fiss, P. C. 2007. A set-theoretic approach to organizational configurations. *Academy of Management Review*, 32(4): 1180–1198.
- Fiss, P. C. 2011. Building better causal theories: A fuzzy set approach to typologies in organization research. *Academy of Management Journal*, 54(2): 393–420.
- Forsgren, M. 2002. The concept of learning in the Uppsala internationalization process model: A critical review. *International Business Review*, 11(3): 257–277.
 Hirsch, P. M., & Levin, D. Z. 1999. Umbrella advocates versus
- Hirsch, P. M., & Levin, D. Z. 1999. Umbrella advocates versus validity police: A life-cycle model. *Organization Science*, 10(2): 199–212.
- Johanson, J., & Vahlne, J.-E. 1977. The internationalization process of the firm: A model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, 8(1): 23–32.
- Journal of International Business Studies. 2020. JIBS statement of editorial policy.

- Khanna, T., & Palepu, K. 1997. Why focused strategies may be wrong for emerging markets (pp. 41–51). Harvard Business Review.
- Kogut, B. 1991. Country capabilities and the permeability of borders. *Strategic Management Journal*, 12(S1): 33–47.
- Kogut, B., & Žander, U. 1992. Knowledge of the firm, combinative capabilities, and the replication of technology. *Organization Science*, 3(3): 383–397.
 Kogut, B., & Zander, U. 1993. Knowledge of the firm and the
- Kogut, B., & Zander, U. 1993. Knowledge of the firm and the evolutionary theory of the multinational corporation. *Journal* of International Business Studies, 24(4): 625–645.
- Kogut, B., & Zander, U. 2003. A memoir and reflection: Knowledge and an evolutionary theory of the multinational firm 10 years later. *Journal of International Business Studies*, 34(6): 505–515.
- Kostova, T. 1999. Transnational transfer of strategic organizational practices: A contextual perspective. Academy of Management Review, 24(2): 308–324.
- Kostova, T., & Roth, K. 2002. Adoption of an organizational practice by subsidiaries of multinational corporations: Institutional and relational effects. *Academy of Management Journal*, 45(1): 215–233.
- Kostova, T., & Zaheer, S. 1999. Organizational legitimacy under conditions of complexity: The case of the multinational enterprise. Academy of Management Journal, 24(1): 64–81.
- Kuhn, T. K. 1962. The structure of scientific revolutions. Chicago: University of Chicago Press.
- Langley, A. 1999. Strategies for theorizing from process data. Academy of Management Review, 24(4): 691–710.
- Li, F. 2018. Why Western Digital Firms have Failed in China. *Harvard Business Review*. Retrieved August 14, 2018, from https://hbr.org/2018/08/why-western-digital-firms-havefailed-in-china.
- Li, F. 2019. Why have all western internet firms (WIFs) failed in China? A phenomenon-based study. *Academy of Management Discoveries*, 5(1): 13–37.
- McGrath, R. G. 2011. On the pitfalls of superstitious learning. Harvard Business Review, 7.
- Nadkarni, S., Herrmann, P., & Perez, P. D. 2011. Domestic mindsets and early international performance: The moderating effect of global industry conditions. *Strategic Management Journal*, 32(5): 510–531.
- Nag, R., Hambrick, D. C., & Chen, M. J. 2007. What is strategic management, really? Inductive derivation of a consensus definition of the field. *Strategic Management Journal*, 28(9): 935–955.
- Pfeffer, J. 1993. Barriers to the advancement of organizational science: Paradigm proliferation. *Academy of Management Review*, 18: 599–621.
- Pirouz, D. & Hong, S. 2014. Target Canada. *Ivey Business Cases*, W14656.
- Polanyi, M. 1966. *The tacit dimension*. New York: Anchor Day Books.
- Poulis, K., & Poulis, E. 2018. International business as disciplinary tautology: An ontological perspective. Academy of Management Perspectives, 32(4): 517–531.
 Puck, J. F., Rogers, H., & Mohr, A. T. 2013. Flying under the
- Puck, J. F., Rogers, H., & Mohr, A. T. 2013. Flying under the radar: Foreign firm visibility and the efficacy of political strategies in emerging economies. *International Business Review*, 22(6): 1021–1033.
- Ragin, Ć. C. 2008. *Redesigning social inquiry: Fuzzy sets and beyond*. Chicago: University of Chicago Press.
- Ramamurti, R. 2001. The obsolescing 'bargaining model'? MNC-host developing country relations revisited. *Journal of International Business Studies*, 32(1): 23–39.

- Rugman, A. M., & Verbeke, A. 2001. Subsidiary-specific advantages in multinational enterprises. *Strategic Management Journal*, 22(3): 237–250.
- Selmier, W. T., II., Newenham-Kahindi, A., & Oh, C. H. 2015. Understanding the words of relationships: Language as an essential tool to manage csr in communities of place. *Journal of International Business Studies*, 46(2): 153–179.
- Stahl, G. K., Tung, R. L., Kostova, T., & Zellmer-Bruhn, M. 2016. Widening the lens: Rethinking distance, diversity, and foreignness in international business research through positive organizational scholarship. *Journal of International Business Studies*, 47(6): 621–630.
- Stevens, C. E., & Newenham-Kahindi, A. 2021. Avoid, acquiesce... or engage? New insights from Sub-Saharan Africa on MNE strategies for managing corruption. *Strategic Management Journal*, 42(2): 273–301.
- Szulanski, G., Cappetta, R., & Jensen, R. J. 2004. When and how trustworthiness matters: Knowledge transfer and the moderating effect of causal ambiguity. *Organization Science*, 15(5): 600–613.
- Tallman, S. 2003. The significance of Bruce Kogut's and Udo Zander's article, 'knowledge of the firm and the evolutionary theory of the multinational corporation.' *Journal of International Business Studies*, 34(6): 495–497.
- Trevino, L., & Doh, J. P. 2020. Internationalization of the firm: A discourse-based view. *Journal of International Business Studies*. https://doi.org/10.1057/s41267-020-00344-8.
- Van Lent, W., Hunt, R., & Lerner, D. 2020. Back to which future? Recalibrating the time-calibrated narratives of entrepreneurial action to account for non-deliberative dynamics. Academy of Management Review. https://doi.org/10.5465/amr.2020. 0358.
- Wallmark, T., & McQueen, D. 1986. 100 viktiga sven-ska innovationer under tiden 1945–1980. Lund: Studentlitterature.
- Winter, S. 1987. Knowledge and the competence as strategic assets. In D. J. Teece (Ed.), *The competitive challenge—Strategies for industrial innovation and renewal*Cambridge: Ballinger.
- Xu, D., & Shenkar, O. 2002. Institutional distance and the multinational enterprise. *Academy of Management Review*, 27(4): 608–618.
- Zander, U., & Kogut, B. 1995. Knowledge and the speed of the transfer and imiation of organizational capabilities: An empirical test. *Organization Science*, 6(1): 76–92.

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