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**TRANSCENDENCE THROUGH RHETORICAL PRACTICES:  
RESPONDING TO PARADOX IN THE SCIENCE SECTOR**

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## TRANSCENDENCE THROUGH RHETORICAL PRACTICES: RESPONDING TO PARADOX IN THE SCIENCE SECTOR

Organizations are often required to meet contradictory but interrelated objectives. An important response to such paradoxes is transcendence: the ability to view both poles of the paradox as necessary and complementary. Despite the centrality of transcendence to existing frameworks within the paradox literature, we still know little about its practice. We address this gap by surfacing and analysing rhetorical practices across three science organizations. We outline four rhetorical practices that constitute transcendence (Ordering, Aspiring, Signifying, and Embodying) as well as the underlying features of these practices that explain how they construct a response to paradox. In particular, we show that transcendence entailed balancing the enabling features of focus (paradoxical content/context), time (stability/change) and distance (maintaining/reducing). Finally, we develop a dynamic view of transcendence as a process of oscillation, showing how these practices are bundled together and interrelate to construct moments of transcendence.

**Keywords:** paradox, rhetoric, science organizations, strategic contradictions, transcendence

How do actors employ rhetorical practices to respond to organizational contradictions? Organizations, such as the science centres referred to above, and their actors, such as scientists required to conduct and publish excellent science and make a commercial impact from that work, often experience and have to work through paradoxes. Paradoxes are a form of tension whereby ‘contradictory yet interrelated elements [poles]...exist simultaneously and persist over time’ (Smith & Lewis, 2011, p.382; also see: Cameron, 1986; Lewis, 2000). Here we focus on performing or ‘strategic’ paradoxes which are defined as inherent contradictions in the objectives an organization is pursuing (Jay, 2013; Lewis, 2000). Such paradoxes are prevalent in a wide range of organizations such as new public management regimes in science (Davenport et al., 2003) and education (Jarzabkowski & Sillince, 2007), as well as organizational hybrids such as social enterprises with social and commercial missions (Pache & Santos, 2013). How organizations respond to such contradictions is critical to their survival (Jay, 2013; Quinn, 1988; Schmitt & Raisch, 2013) and a central concern in paradox theory (Lewis, 2000; Poole & Van de Ven, 1989). Transcendence, our focus, is one way of responding to paradoxes and involves treating paradoxical poles as complementary rather than as competing (Jarzabkowski et al., 2013; Lewis, 2000). While there is firm agreement that transcendence is important (e.g. Farjoun, 2010; Werner & Baxter, 1994), how it actually unfolds through the practices of organizational actors,

such as rhetoric, remains largely unexplored.

The paradox literature argues that responses to paradox unfold through ‘actors’ cognition and rhetoric’ (Smith & Lewis, 2011, p.388; also see: Lewis, 2000; Lewis & Smith, 2014). We examine the second element (how transcendence unfolds through persuasive talk), which provides a contrast with the existing primary focus on individuals’ cognitive frames (e.g., Bartunek, 1984; Jay, 2014; Smith & Tushman, 2005; Westenholtz, 1993). Rhetorical practices (Balogun et al., 2014) are recognized as particularly pertinent in contradiction-laden contexts (Cheney et al., 2004; Sillince et al., 2012) and allow actors to “create, maintain, and alter” the relationship between contradictory elements (Jarzabkowski & Sillince, 2007; Suddaby & Greenwood, 2005, p.61). Namely, rhetoric has been shown to have “constructive potential” (Heracleous & Barrett, 2001, p.261), with a ‘direct and dynamic’ relationship to organizational action (Balogun et al., 2014; Sillince et al., 2012; Suddaby & Greenwood, 2005). Through this focus on rhetorical practices we also draw from a growing number of studies that show the consequentiality of everyday activities in shaping how paradoxes are formed and responded to (Beech et al., 2004; Dameron & Torset, 2014; Jarzabkowski & Lê, forthcoming). Such an approach has the potential to move beyond existing generalized understandings of paradox responses and it has been noted that more research into these practices is required (Jarzabkowski et al., 2013; Jarzabkowski & Lê, forthcoming; Smith, 2014).

We address this call by building on studies that have described the discursive and rhetorical foundations of transcendence (Abdallah et al., 2011; Jarzabkowski & Sillince, 2007), to explore the rhetorical practices, their underlying features, and how they interrelate and unfold to construct transcendence for the first time. To do so, we draw from a qualitative study of three New Zealand science organizations that experienced paradoxes between commercial/social and science excellence/impact objectives. Such paradoxes are characteristic of science environments globally where the demand for commercial and social impact from research has become increasingly central, even as the demand for science excellence has amplified (Davenport et al.,

2003; De Rond & Miller, 2005; Sauermann & Stephan, 2013). A striking aspect of these cases emerged inductively as transcendence. And as we analysed the data further we found a remarkable degree of similarity across all three organizations in the rhetorical practices actors used to construct this response. We identified four rhetorical practices, *Ordering*, *Aspiring*, *Signifying*, and *Embodying*, and their underlying enabling features. Namely, we found that rhetorically constructing transcendence involves balancing different: *foci* (paradoxical content/context), assemblies of *time* (continuity/change) and *distance* (maintaining/reducing distance). We also elaborate on how these different practices interrelate by exploring how the construction of transcendence unfolds dynamically as a process of oscillation between elements of the paradox and bundles of these practices.

## **Theoretical Background**

### **Paradox Theory and Transcendence**

Performing paradoxes are contradictions in organizational objectives based on the divergent definitions of success held by important stakeholders (Jarzabkowski et al., 2013; Lewis, 2000; Luscher & Lewis, 2008) such as exploitation/exploration (Andriopoulos & Lewis, 2009; Smith, 2014) or social/commercial missions (Smith et al., 2014). Paradox theory is one approach that examines organizational responses to such contradictions (e.g., also see institutional complexity: Greenwood et al., 2011 and organizational pluralism: Denis et al., 2007). Paradox theory specifically focuses on contradictory poles that are mutually exclusive yet interrelated, and persistent over time; meaning no choice or compromise can be made between those poles (Cameron, 1986; Clegg et al., 2002; Lewis, 2000). How organizations respond to such paradox is, consequently, a central focus of paradox literature (Jay, 2013; Quinn, 1988; Schmitt & Raisch, 2013). Seminal studies have focused on developing frameworks that highlight various responses to paradox from the ‘defensive’, where one side of the paradox is suppressed, to the ‘active’ where organizations accept, confront, and transcend paradox (Jarzabkowski et al., 2013; Lewis, 2000; Vince & Broussine, 1996). However, paradox theorists ultimately highlight the power of

both/and responses that sustain contradictions (Lewis, 2000; Smith & Lewis, 2011). An example of such a response is transcendence, which is central to existing paradox frameworks (Lewis, 2000, p.762; also see: Abdallah et al., 2011; Chen, 2008; Farjoun, 2010; Smith & Lewis, 2011), our focus here.

Transcendence involves ‘moving towards a higher plane of understanding in which paradoxical poles are understood as complex interdependences rather than competing interests’ (Jarzabkowski et al., 2013, p.249; Lewis, 2000). Within paradox theory transcendence does not mean resolution through a tidy synthesis (cf. Bledow et al., 2009). Rather, the paradox persists but through this ‘higher level of abstraction’ (Lewis & Grimes, 1999, p.2001) contradiction is not only accepted but enacted as something more workable, even if only partially (Abdallah et al., 2011). The notion of working through rather than resolving paradox remains central (Clegg et al., 2002; Luscher & Lewis, 2008). Examples of transcendence include novel reframing of paradox within the discourse of organizational leaders that describe how contradictory demands are reinforcing (Abdallah et al., 2011), and the creation of an overarching vision that encompasses paradoxical poles and prompts creative problem solving (Smith et al., 2010). Some studies outside the paradox literature provide additional examples of transcendence aligned with our definition, such as Kraatz and Block’s (2008) description of a form of transcendence whereby an organization is infused with value beyond its constituent elements, allowing it to rise above specific contradictory demands from stakeholders.

Despite the centrality of transcendence in existing paradox frameworks, the majority of paradox studies theorize transcendence at a general level without exploring it empirically (e.g., Chen, 2008; Clegg et al., 2002; Farjoun, 2010; Kraatz & Block, 2008; Lewis, 2000; Poole & Van de Ven, 1989; Smith & Lewis, 2011). In particular, while one established insight is that the “cognitively sophisticated” paradoxical frames of individuals are important (Bartunek, 1984; Eisenhardt, et al., 2010; Miron-Spektor et al., 2011; Smith & Tushman, 2005), little is known about the actual practice of transcendence as something that unfolds through the actions and

interactions of multiple actors (Clegg et al., 2002). This omission is important as localized experiences of and responses to such paradoxes unfold over time through how organizational actors speak about, not just think about, them (Abdallah et al., 2011; Jarzabkowski & Lê, forthcoming; Lewis & Smith, 2014; Papachroni et al., forthcoming; Smith & Lewis, 2011, p.388). Indeed, the existing paradox literature has now shown that to understand responses to paradox, we need to focus on the practices through which it unfolds (Beech et al., 2004; Clegg et al., 2002) such as: everyday uses of humour (Hatch & Erlich, 1993; Jarzabkowski & Lê, forthcoming) or numbers (Michaud, 2014). These practice-oriented studies have not focused on transcendence specifically (e.g., Beech et al., 2004; Dameron & Torset, 2014; Jarzabkowski et al., 2013; Michaud, 2014; Murnighan & Conlon, 1991), yet have suggested the complexity of such response, for example, by showing how practices that differentiate paradoxical poles can unfold alongside those that integrate them (Andriopoulos & Lewis, 2009; Knight & Paroutis, forthcoming; Smith, 2014). In addition, studies have begun to show that one particularly useful way to examine transcendence is to study rhetorical practices (Abdallah et al., 2011; Jarzabkowski & Sillince, 2007) and we will turn to this insight below.

### **Rhetoric and Transcendence**

Rhetorical practices are persuasive discourse and patterns of argumentation (Balogun et al., 2014; Suddaby & Greenwood, 2005; Watson, 1995) used to achieve particular ends (Gill & Whedbee, 1997; Grant et al., 2004), such as responding to paradox. The study of rhetoric is particularly suited to “the examination of strategic action”, such as responding to paradox, “because it is a strategic form of speech act, in which actors use speech to have effects upon an actual or implied audience (Heracleous, 2006)” (Sillince et al., 2012, p.632–3). Namely, the literature highlights the ‘constructive potential’ of rhetoric; illustrating a direct relationship between rhetorical practices and organizational action and decisions (Green et al., 2008; Heracleous & Barrett, 2001, p.261; Suddaby & Greenwood, 2005). For example, in a jurisdictional struggle within accountancy and law, rhetoric proved instrumental in how organizational actors created, maintained, and altered

the relationship between contradictory elements to enable a shift to new organizational forms (Suddaby & Greenwood, 2005).

Relevant to our focus, as ‘a persuasive art’ rhetoric is implied in settings defined by contradictions, ambiguity or conflict where argumentation is particularly necessary (Cheney et al., 2004, p.82). Research has thus shown the particular prevalence of rhetorical practices within contradiction laden settings (Alvesson, 1993; Mueller et al., 2004; Sillince et al., 2012) and the importance of rhetoric in establishing a sense of identification with (multiple) organizational goals (Burke, 1989; Jarzabkowski & Sillince, 2007; Jarzabkowski et al., 2010). These studies have tended to explore the rhetorical construction of different sides of debates as part of contested change initiatives (Erkama & Vaara, 2010; Heracleous & Barrett, 2001; Suddaby & Greenwood, 2005; Symon, 2005), such as including the schisms between the rhetoric of groups (Carter & Mueller, 2002; Mueller et al., 2004).

A smaller number of studies have specifically used a paradox lens to highlight how talk can be central to enabling both/and approaches to contradiction. Paradoxes have been shown to emerge and be reflected within discourse and rhetoric (Dameron & Torset, 2014; Whittle et al., 2008) and specific discursive practices, such as ambiguity, have been shown to be a central means through which actors respond to paradox (Abdallah & Langley, 2013; Hatch & Erlich, 1993; Jarzabkowski & Lê, forthcoming). Regarding transcendence specifically, Abdallah et al. (2011) point to the discursive foundations of transcendence and explore important non-rhetorical mechanisms, such as groupthink, that support (and eventually undermine) transcendence. However, the specific rhetorical practices that constitute this overarching discourse and how bundles or multiple rhetoric practices interrelate to “creatively bridge opposite poles” (2011, p.333) was not their focus. Jarzabkowski and Sillince (2007) show how a “synergy rhetoric” that argues multiple activities are important and that consistency between that rhetoric and a firm’s historical context can construct commitment to multiple goals. There is, however, scope to expand on their insights through looking at a broader array of rhetorical



practices and at how rhetorical practices dynamically or processually interrelate and unfold in relation to one another to construct “activities as compatible” (ibid. 2007, p.1647). Furthermore, in contrast with Jarzabkowski and Sillince’s (2007) emphasis on consistency, the importance of inconsistency for managing paradox has also been shown (Andriopoulos & Lewis, 2009), the implication being that transcendence rhetoric perhaps also involves maintaining inconsistency (El-Sawad et al., 2004; Whittle et al., 2008). Finally, Jarzabkowski and Sillince (2007), as with paradox studies generally, have focused on the speech acts of leaders (also see: Abdallah et al., 2011; Dameron & Torset, 2014). There is thus a need to broaden the notion of speaker/audience to account for the rhetoric of diverse actors who collectively construct transcendence.

We build on the above theoretical foundations and gaps to expand our understanding of the nature and emergence of transcendence (Lewis, 2000, p.764). Accordingly, we ask: how is transcendence constructed through the rhetorical practices of organizational actors? We address this question through an empirical study of science organizations.

## **Methods**

### **Research Context, Design and Case Selection**

Science organizations experience and collectively enact contradictory strategic objectives (Colyvas & Powell, 2006; Sauermann & Stephan, 2013). Reflective of similar changes globally, the New Zealand (NZ) science system a shift unfolded a sole focus on science excellence to requirements that science organizations demonstrate immediate impact/relevance, whether commercial or social. The basis of this was neo-economic reform, which during the 1990s saw the public science sector become experienced as increasingly competitive, commercial, and impact-oriented (Leitch & Davenport, 2005). Studies have since reflected on the ‘underlying struggle’ (Davenport, Leitch, & Rip, 2003) within the objectives NZ science organizations interact with. Namely, the ultimate relevance of fundamental research is long-term and cannot be predetermined, which contradicts demands for immediate impact (ibid. 2003; March, 1991).

Similarly, as the emphasis on commercial targets, private-public partnerships, and commercialization of basic science has grown, tensions between commercial and social objectives have also been keenly felt (CRI Taskforce, 2010).

We purposefully sampled for NZ science organizations that interact with these contradictions (Yin, 2009), focusing on how paradox was locally enacted in three contexts (see Table 1). First, Crown Research Institutes (CRIs) were established as part of the public-sector transformation mentioned above. As government-owned companies, CRIs are required to undertake excellence research for the good of NZ while delivering a profit; objectives widely recognized as contradictory (CRI Taskforce, 2010). Second, Centres of Research Excellence (CoREs) are government funded collaborative centres between universities, typifying the notion of post-modern universities (Rip, 2000) where demands for impact, such as commercialization, are incorporated into domains that were traditionally solely focused on science excellence (Tertiary Education Commission, 2008). Third, high-tech start-ups rely on fundamental science as the source of their product platforms, frequently accessed through long-term close ties with academia and scientist founders (Meyer, 2003). This often leads to contradictory demands from multiple stakeholders, such as scientist founders and investors (Stone & Brush, 1996).

**[Insert Table 1 about here]**

We selected one of each of these three organizational types (see Table 1), enabling us to observe similar paradoxes unfolding in different but interrelated settings along the science commercialization chain, from basic (CoRE1), applied (CRI1), to commercialized (TechSpinOut). This variation provided a broader basis for our theorization but within a single sector and organizations experiencing broadly similar paradoxes (Andriopoulos & Lewis, 2009; Eisenhardt, 1989). Drawing on secondary data and regular consultation with experts on this sector, cases were selected based on two main criteria (as per Lewis et al., 2014). First, we selected organizations evidently experiencing the two contradictions. For instance, there was evidence that social objectives (not just commercial ones) were central to key stakeholders in

TechSpinOut and that there were ongoing dependent ties with academia/scientist founders. Second, we followed existing exemplar studies in selecting cases that appeared to work through paradox in fruitful ways (Lewis et al., 2014; also see: Andriopoulos & Lewis, 2009; Luscher & Lewis, 2008). We could not know a priori what the specific responses were but were able to select cases which showed signs of creatively managing contradictions.

### **Data Collection and Analysis**

A range of actors were interviewed to capture the contradictory definitions of success inherent in performing paradoxes (Jay, 2013), from scientists and managers to a range of applicable investors, board members, administrators and industry-level background interviews (e.g., government officials). The first-author conducted 44 semi-structured interviews; averaging 62 minutes in length (see Table 2), asking participants 1) what objectives were important to them and other stakeholders; 2) the organizational experience of any contradictions; and, 3) how these paradoxes (if any) were responded to by the organization. Secondary data were also collected, assisting in case selection (see above) and enabling triangulating insight (Yin, 2009; see Table 2). Our thematic coding of this data proceeded in stages (Langley, 1999).

#### **[Insert Table 2 about here]**

**Phase 1. Identifying paradox.** Having purposely sampled for performing paradoxes we analysed how these were experienced and enacted in the local organizational settings of our cases. This was done through understanding how participant's definitions of success contradicted those of other participants' (Jay, 2010) and by paying attention to any explicit contradictions participants themselves described. Multiple manifestations of paradoxes between *social/commercial* and *science excellence/impact* objectives were expressed in each case. Examples of both are provided below:

Internal profit (commercial) vs. external benefit to NZ (social): 'Ninety percent of the meeting is "you've got to meet budget"...it's effectively an internal focus [CRI1 profit]. The management focus has been on meeting budget requirements. That doesn't create wealth for NZ, that's just so management can see a profit' (Scientist, CRI 1)

Delivering immediate *impact* when conducting basic science where the outcome is unknown (science excellence): ‘People expect an immediate result on something that has never been done before. It’s challenging’ (Manager, CRI).

Table 3 provides additional illustrative examples, as does Part 2 of the findings, and shows how in the local setting different aspects of the paradox can be experienced and emphasized; for instance, how the paradox impact an individual’s work or ambitions versus organizational implications such as resourcing (time or money). While the two paradoxes emerged as distinct tensions (frequently described separately by participants), they were also entwined. This explains why the rhetorical practices we subsequently surfaced are not segmented as separately targeting either paradox as no such clear-cut distinction was made by participants.

**[Insert Table 3 about here]**

**Phase 2. Initial emergence of Transcendence emerges as explanatory.** How such paradoxes are experienced in a local setting is entangled with the response that a particular organization practices (Jarzabkowski & Lê, forthcoming). We conducted intra-case analysis of how each organization responded to paradox, and wrote these up as descriptive case reports (Wolcott, 1994). As we become aware of certain initial themes such as ‘overarching objectives’ (eventually Ordering below), ‘inspiring visions’ (eventually Aspiring below), ‘prioritizing company over specific objectives’ (eventually Signifying below) and ‘transforming individuals’ (eventually Embodying below) an understanding that transcendence might be a theoretical category that we could associate with the cases emerged. We thus simultaneously returned to the literature, (Jarzabkowski et al., 2013; Lewis, 2000; Kraatz & Block, 2008), to understand or label the response descriptive of our cases. For example, initial observations around broad themes such as the cases provided ‘transforming individuals’ through expanded definitions of what it meant to be a scientist reconceived science excellence and impact as complex interdependencies rather than as competing (Jarzabkowski et al., 2013). Our cases thus appeared to go beyond simply accepting paradox and transcendence emerged as a broad theoretical category common to the three cases. Given few paradox authors had previously investigated this response, it became

the phenomenon of interest for this study.

**Phase 3. Rhetorical practices.** As we analysed these initial themes further we became aware that transcendence was unfolding through the persuasive arguments participants were making in relation to paradox. Rhetoric consequently emerged as a pertinent analytical frame through which to further understand our transcendence data (Alvesson, 1993; Jarzabkowski et al., 2010). To focus our analysis on such persuasive speech that has an effect on an audience we focused on instances where lines of argumentation were entwined with associated descriptions of organizational actions (Balogun et al., 2014; Sillince et al., 2012; Suddaby & Greenwood; 2005; see Table 4 below). Having first conducted intra-case analysis, surfacing the rhetorical practices integral to each case, the thematic unity (Abdallah & Langley, 2014; Kets de Vries & Miller, 1987) across cases quickly became apparent, and inter-case analysis refined and extended our understanding. As we collapsed and combined our initial case-specific themes (Phase 3), four rhetorical practices emerged within and across our cases: Ordering, Aspiring, Signifying, and Embodying. While specific practices might be slightly stronger in particular cases, we were primarily struck by the similarities and consistency in the rhetoric across the cases (Part 1, Findings).

**Phase 4. Enabling features of rhetorical practices.** Further interpretive understanding slowly emerged of certain underlying features within and across these rhetorical practices. First, we identified two foci which explained the essential characteristics of the rhetorical practices and the differences between them. The rhetorical practices focused either on the ‘content’ of the paradoxical poles themselves (Ordering/Aspiring) or the organizational/individual ‘context’ of that paradox (Embodying/Signifying). Second, the strong temporal references within our data were evident (e.g., future-oriented Aspiring arguments). This prompted us to see further references to ‘change’ and ‘continuity’ as something which, again, distinguished the practices. Third, an emphasis on the distance between the paradoxical poles (integration/differentiation) is central in paradox theory (Andriopoulos & Lewis, 2009; Lawrence & Lorsch, 1967; Smith, 2014).

Drawing on this insight, we became aware of different constructions of ‘distance’ within the rhetoric across the four rhetorical practices. In building this interpretation, we also drew on rhetorical theory where ‘focus’, ‘distance’ and ‘time’ are fundamental concepts in describing argumentation (Bakhtin, 1981; Sillince, 2002).

**Phase 5. The process of transcendence.** Our final layer of discovery (Feldman et al., forthcoming) entailed exploring the dynamic process through which the rhetorical practices unfolded and interrelated as transcendence. Specifically, we moved from a focus on the content of our data to ‘theorizing the arrows’ (Feldman & Orlikowski, 2011), that is the dynamic constant dynamic work transcendence involves (Chia and Holt 2006; Jarzabkowski & Lê, forthcoming). There was no linear progression of rhetorical practices (cf. Green et al., 2004) that led to transcendence as some kind of final result. Rather we observed an ongoing oscillation between iterations of aspects of the paradox(es) and moments of transcendence. While these moments of transcendence involved rhetorical practices being bundled in a large variety of ways to bring together multiple foci, we found that they frequently involved explicitly juxtaposing different references to time (e.g., change and continuity) and distance (e.g., maintaining and reducing distance). This dynamic process forms the final layer to our theorizing and is depicted in Part 2 of our findings.

### **Findings - Part 1: Rhetorical Practices of Transcendence**

Transcendence of the two entwined paradoxes, science impact/excellence and social/commercial objectives (see Table 3), was present in all three cases. We will illustrate this below by highlighting the four rhetorical practices that constituted this transcendence. As well as being entangled with organizational actions (see Table 4); these four rhetorical practices were themselves characterized by enabling features of: *focus* (the content of the paradox or the organization and individuals that form the paradox context); *time* (change/continuity) and *distance* (maintaining or reducing distance between paradoxical poles or individual/organizational contexts). These are introduced below and further illustrated in Part 2 of our findings.

[Insert Table 4 about here]

### **Ordering practices: Focus on paradoxical content**

Ordering practices reinforced links between objectives, persuading through outlining how the paradoxical poles related to one another in complementary, albeit complex, ways. This was often done in relation to an overarching objective which formed the ‘higher plane of understanding’ that enabled these interdependencies between paradoxical objectives to be highlighted (e.g., See Table 4, 1B]. For example, a scientists stated: ‘We’re not just trying to juggle them [social/commercial objectives] but come up with efforts to link the objectives a solution about how we might align them’ (Scientist, CRI1). The ‘focus’ was of such practices was on ordering the relationship between the poles of the paradox.

**Enabling features: Continuity/change and maintaining/reducing distance.** Such Ordering practices involved simultaneously emphasizing ‘change’ and ‘continuity’. For example, while the overarching objective or complex interdependency was defined as constant, how the specific order manifested itself fluctuated:

“The balance subtly changes probably daily and certainly over time [with regards to the emphasis on objectives]. You can place an emphasis on a particular piece but your purpose and vision stay steady” (Manager, CRI1).

Another CRI manager explained how the emphasis on the ‘commercial’ objective might change depending on whether there is a recession, and thus increased financial pressure, even as their more expansive paradoxical purpose remained constant (see Table 4, A). This Ordering rhetoric also simultaneously maintained and reduced the distance between paradoxical poles. An indicative example being the following description of the simultaneous need to separate but also link the paradoxical poles of science excellence and impact: ‘You want some great scientists who just focus on the science...But you don’t want to let them all huddle up and forget someone needs to buy this’ (CEO, TechSpinOut). The paradoxical poles thus were constructed as distinct, albeit interconnected, objectives (also see Table 4).

### **Aspiring practices: Focus on paradoxical content**

Aspiring practices persuaded through articulating an inspiring expansive vision of the future and transcended by highlighting how the paradoxical poles together worked towards and were accounted for within that vision of the future. An example was a future vision of TechSpinOut where the commercial and social objectives had been both achieved through expansive growth:

In 5 years' time we want to be 10 times bigger; so we will be a \$X million revenue company in 5 years and 5 years after that ten times that again. Then eventually we are going to beat 'Fisher & Paykel Healthcare' [exemplar NZ technology company]; that's the dream. (Scientist-Founder, TechSpinOut)

Aspiring practices thus enabled transcendence through arguing present actions, regardless of what particular objective they emphasized, work towards an expansive future where all objectives are met. As this suggests, the 'focus' was the paradoxical poles themselves (and the relationships between them).

**Enabling features: Change and maintaining distance.** Aspiring practices were underpinned by notions of 'change' with a future distinct from the present evocatively described. They persuaded through building excitement about what could be accomplished if the objectives were all met, as shown in the "dream" the scientist founder references in the quotation above. These references to change were also linked with construction of distance between the paradoxical poles by locating, at least some, in the future. For example, distance between the science excellence/impact objectives could be maintained by locating elements of social impact in the future:

One way we are going to measure ourselves in the future is 'are we attracting students in physical science?' [...] That's something we'll be monitoring in the future. It's a bit early now but probably over the next six years (Leader, CoRE1)

However, even when distance from a particular pole was maintained it remained central as part of an integrative future vision.

### **Signifying practices: Focus on paradox context (Organization)**

Signifying practices persuaded by imbuing the organizational context of the paradox with value and significance as something larger than any particular stakeholder and any specific objective. The contradictory objectives were described as central to that valued organization were entwined



and constructed as complementary in relation to the larger question of that valued organization. Stakeholder balanced their own personal demands in relation to the larger question of what was best for the organization, putting aside the self-interest which might let them become attached to a particular objective (such as science-excellence in the quotation below; also see Table 4/I):

‘It’s hard to manage these tensions. What has helped is that we as managers have put our self-interest aside when there have been tensions...taken a small sacrifice to promote the interests of CoRE1. People understand that because [Leader1] could have stayed a very successful scientist: it’s clear he’s not “what’s in it for me” (Leader, CoRE1).

Performing paradoxes were, thus, transcended by focusing on the organizational context of paradox as the “higher plane of understanding” that encompassed any individual paradoxical pole.

**Enabling features: Continuity and reducing Distance.** Signifying practices involved continuity and reducing distance. The value of the organization for actors was built over time: ‘I’ve had a long term relationship with TechSpinOut...I’ve been there right from the beginning and very much intertwined. ‘It’s [the organization] just part of me really now” (Scientist-Founder, TechSpinOut) (also see Table 4, G). As this quotation shows Signifying rhetoric also reduced the distance between individuals and the paradoxical organizational context, and thus between them and both sides of the paradox those organizations encompassed. Another example was how CoRE1 used democratic processes to build a sense of ownership amongst its stakeholders to reduce the distance between it and those stakeholders: “An democratically elected body [of our scientists]... manages how we spend our money... that means everyone gets an opportunity to be involved, and it lets people buy-in. It’s a mechanism by which you feel connected [to the CoRE] [...] who owns it? You do!” (Leader , CoRE 1). By reducing the distance between the stakeholders and the organizational itself, it reduced the distance between them all the objectives; effectively as a result bringing those poles closer together.

**Embodying practices: Focus on paradox context (Individual)**

Embodying practices persuaded through referencing individuals who successfully embodied the

conflicting poles. Participants referenced others but also themselves in this regard. A persuasive element of this rhetoric was that the capacity to encompass paradox can be learnt over time (see below), as one scientist describes: ‘Working with the business and development team has up-skilled me with a commercial view; I need to talk the language and think about the market’ (Scientist, CRI1). The ‘focus’ of Embodying practices were, therefore, individuals (whether leaders or not) who formed part of the context of the paradoxical objectives and acted as the higher plane in relation to the contradictory objectives.

**Enabling features: Continuity and reducing distance.** This ability to embody paradox was linked to ‘continuity’ and ‘reducing’ distance. References to expertise built over time were central to persuasively arguing that particular individuals embodied paradoxical objectives. For example, we see this in the reference to the expertise CEO had amassed over time:

‘We’re blessed with our CEO because [...] he’s a brilliant scientist, he’s done his PhD...But what drives him are the hard commercial objectives. It’s unusual to find that in one person’ (Scientist-Founder, TechSpinOut).

By describing the paradox as something that can be encompassed within a single individual in this way, Embodying rhetoric also reduced the distance between the paradoxical poles. For example, rather than ‘science-excellence’ being separately located in ‘scientists’ and ‘commercial-impact’ in ‘business people,’ they were entwined within a single person, the notion of “scientists in suits” being an example some participants referred to.

## **Findings - Part 2: The Dynamic Unfolding of Transcendence**

Having identified the above rhetorical practices and their enabling features, we now explore how these practices (and thus transcendence) unfolded and the relationship between them. First, we show how transcendence involved a dynamic oscillation between (re)iterations of the paradox and rhetorical practices. Second, we will explore how rhetorical practices were bundled as part of these oscillations, in particular to juxtapose different emphases in relation to time and distance.

### **Transcendence as Involving Oscillating**

Transcendences unfolded as an ongoing oscillation between experiences of paradox and the rhetorical practices. Each iteration of the rhetorical practices transcended and was a response to an aspect of the paradox but also then led to another reiteration of the paradox (for example, a different aspect of the paradox) before this was, in turn, again responded to through another (different) iteration of rhetorical practices. This processual dynamic is depicted in Vignette 1 below where the scientist founder moved from a broad manifestation of the paradox (1a) to constructing transcendence through Embodying and Signifying practices (1b). However, this response led to another (more individualized) aspect of the paradox (1c) which was in turn entangled with a bundle of Signifying and Aspiring practices (1d). We label each iteration of the rhetorical practices as moments of transcendence. And as the second indicative example in Vignette 2 helps illustrates, this was a pattern repeated across our data.

**Vignette 1.** Excerpt from interview with Scientist Founder, TechSpinOut

1.1 We often get scientists sitting in their little labs just tinkering away with things. But we never really think about how “I can actually contribute to the real world?”	<b>1a. Paradox.</b> (broad science impact/excellence tension) [1.1]
1.2 However, being more of an engineering person. I see the application of technology but I do love to dabble in the science side as well. I’m a mixture.	<b>1b. Moment of transcendence:</b> <i>Embodying</i> [1.2] and <i>Signifying</i> [1.3] (significance of organization) [1.3]
1.3. I get a buzz from seeing “hey my stuff is actually being sold.” That’s exciting. You write a paper and maybe five people read it. Here we are selling thousands of items. Millions of dollars of technology. It is <i>significant</i> .	
1.4 [The scientist pauses] Of course growth has its problems too.	<b>1c. Paradox</b> (individual implications of science impact/excellence tension) [1.4]
1.5 As things become more intense and busy, I’m becoming more and more absorbed in it. I always say that spinning off a company it’s like having a little baby. It screams and yells and demands feeding all the time. And you’ve got to just [pause] you can’t just walk away from it, you can’t let go.	<b>1d. Moment of transcendence:</b> <i>Signifying</i> [1.5] and <i>Aspiring</i> [1.6]
1.6 And one day I hope we can wean it off [...]My goal is to make myself redundant, then it’s a true success. Plus, maybe I want to go and start looking at some new technologies. I’m a science and engineering person - I just want to go back into my sandpit and play	Ongoing [...]

again: see what else I can see.

A central characteristic of these oscillations between experience of paradox (e.g., 1a and 1c) and moment of transcendence (e.g., 1b and 1d) were shifts in focus between the paradoxical poles, and the organizational and individual context of the paradox. For example, in Vignette 1 the focus shifts from reflecting on how the paradoxical poles broadly understood (1a) were transcended through individuals who could encompass those poles via an Embodying response (1b). The opposite occurs in the indicative example below (Vignette 2) where the oscillation was characterized by a shift in focus from the individuals that are able to embody the paradox (2b) to how the contradiction manifests itself in terms of resourcing the paradoxical demands themselves (2c). This switching focus thus appears to be a dominant characteristic in the oscillation between experiences of paradox and moment of transcendence.

**Vignette 2.** Excerpt from interview with Scientist-Leader, CoRE1

2.1 Some of [our scientists] want to be left to concentrate on the basic research. The external stakeholders [e.g., government funders] and us [CoRE Leaders] want to pull the industry stuff <i>[interviewer probes this tension]</i>	<b>2a. Paradox</b> (industry/ science) [2.1]
2.2 Every side has their own viewpoint, but it would be rare for someone in a technology related business to disregard the value of basic science. Likewise the scientist who wants to be left alone in his [sic] lab to do whatever the hell he wants and not care about any commercial outcome is rare now.	<b>2b. Moment of transcendence.</b> <i>Embodying</i> [2.2]
2.3 It's not that there's a direct link that the scientists want to take their basic science and find an application. But they want to know that it's important to industry. Likewise the industrialists don't take this basic science and [...] apply it, but they want to know that there are pathways between discovery and application. <i>[Pause]</i>	<i>and Ordering/ Embodying</i> [2.3]
2.4 The difficulty is the balance. What proportion of activities should we engage in? Who should pay for what? The industrialist, no matter how interested in basic science may say – “in reality I'd rather my bottom line was better”.	<b>2c. Paradox</b> [2.4] (resourcing)
[bundle of Aspiring & Ordering practices then followed in response]	Ongoing [...]

**Transcendence as Bundling of Rhetorical Practices**

As illustrated in the above vignettes, the interconnections created amongst rhetorical practices were important; each moment of transcendence was largely constructed as bundles of rhetorical practices rather than isolated practices. This bundling also blurred the boundaries between the rhetorical practices; for instance, in Vignette 2 Embodying and Ordering rhetorical practices were drawn from simultaneously [Vignette 2; 2.3]. How these rhetorical practices were bundled remained messy; there was no clear sequential pattern that characterized their unfolding either within or across each moment of transcendence. However, one general pattern emerged: a strong emphasis on a particular enabling feature (e.g., change/maintaining distance) frequently prompted the balancing juxtaposition of the corresponding opposite (e.g., continuity/reducing distance) via another rhetorical practice.

First, Vignette 1 illustrates the close juxtaposition of temporal emphasizes within moments of transcendence. Signifying practices first emphasized continuity in terms of the founder-scientist's commitment to the organization ("can't let go") [Vignette 1, 1.5], but was closely followed by Aspiring rhetoric which emphasized the possibility for change [1.6]. In another illustrative example below a bundle of rhetorical practices also juxtapose a strong emphasis on change, for instance the "larger opportunities" through which both public benefit (to NZ) and commercial benefit (financially for CRI1) would be achieved in the future [Aspiring]) to how an emphasis on multiple objectives was sustained over time through a firmly held professional identity by the individuals involved [Embodying]:

*(referencing social/commercial objectives):* We tried to demonstrate with [ProjectA] that to achieve the type of innovation required for economic growth we've got to think about larger opportunity [...because] I very unashamedly state that if the R&D's good for New Zealand, then CRI1 and the whole R&D system will benefit **[Aspiring]** [...] For us that's around a clear understanding that at the end of the day we all choose to work in CRI1 because we want to make an impact through working with industry. That's at the core of our individual professionalism **[Embodying]** (CEO, CRI1)

Second, the bundling of rhetorical practices often simultaneously maintained but also reduced the distance between paradoxical poles. In Vignette 2, the bundling of Embodying and Ordering practices [Vignette 2, 2b] were used to bring the paradoxical poles together (highlighting how

particular individuals appreciated the importance of both poles) but simultaneously distance was maintained as different stakeholder groups emphasized specific objectives and thus maintained the distinction and separation between them. In another illustrative example below, Aspiring practices creating distance from certain larger public-good demands (e.g., transforming the NZ technology sector was located in the future) before the array of (implied) “competing ambitions” are simultaneously brought together within the shared acknowledgement that the whole is what matters rather than any (implied) specific demand through Signifying:

*(Referencing social/commercial objectives):* It really comes down to a matter of almost pride in a NZ context: we’re driven by “let’s show how it [technology development] can be done” – almost like a nationalistic thing. We want to do it here in NZ and we want to prove that you can do it here. What motivates? We’re going to take on the world from NZ! It’s a public good [**Aspiring**]. And for all of the complexity around the competing ambitions or whatever, in the case of this thing it’s bigger than us - it’s something more important [**Signifying**].

Consequently, the bundling of rhetorical practices appeared to be, at least partly, characterized by the importance of juxtaposing different references to time and distance.

The variation in how the practices unfolded in our data meant there were exceptions to this observed pattern. Vignettes 1 and 2 show that while the above juxtapositions of temporality and distance were a frequently observed and important element of the bundling of rhetorical practices any rhetorical practices could be bundled with another to increase the persuasiveness of the response through combining multiple foci. We see this in Vignette 1, where Embodying (and a focus on individuals who can encompass the paradoxical poles) is bundled with Signifying (and a focus on a significant organization that encompassed the paradoxical poles) to build a moment of transcendence based on multiple foci. In summary, therefore, transcendence was constructed through bundling rhetorical practices to build layers of multiple foci as well as simultaneous references to change/continuity and maintaining/reducing distance.

## DISCUSSION

This paper developed out of the observation of transcendence unfolding through similar rhetorical practices across three different science organizations. Such transcendence is an important (Lewis, 2000) but infrequently studied response to performing paradox. The existing

literature has provided broad rather than detailed theorizations of transcendence (e.g., Kraatz & Block, 2000; Poole & Van de Ven, 1989) and has tended to conceptualize it as a cognitive frame at the individual level (e.g., Bartunek, 1984; Eisenhardt et al., 2010; Jarzabkowski & Lê, forthcoming; Lewis, 2000; Smith & Tushman, 2005). Our focus on rhetorical practices has allowed us to instead identify: first, the varied rhetorical practices that constitute transcendence (Findings Part 1-2); second, the enabling features that underlie these rhetorical practices and explain their constructive potential (Findings Part 1-2); and, third, how transcendence unfolds as a dynamic process of oscillation, and how these practices are bundled and interrelated [Findings Part 2].

**[Insert Figure 1 about here]**

We bring these findings together in a framework (Figure 1) that depicts the construction of moments of transcendence. In the larger three circles of the figure, the constitutive elements of transcendence are represented: four rhetorical practices (Figure 1, A-D) and their enabling features (focus, time and distance; Figure 1, Key 1). The framework also illustrates how transcendence unfolds as an ongoing process of oscillation (Figure 1, i) between experiences of aspects of the performing paradox and bundles of these practices (e.g., as shown in Vignettes 1 & 2 above). As part of each oscillation, two or more rhetorical practices are variously bundled together (Figure 1, ii) to form what we define as a moment of transcendence. However, as the ongoing nature of framework suggests and our findings (Part 2) showed, any such moment of transcendence then leads to another experience or aspect of paradox (Figure 1, i) before this in turn is again responded to by another bundle of practices. Having briefly introduced the framework, we now explore in greater detail these constitutive elements of the framework (Figure 1, A-D) before theorizing the arrows in terms of how these rhetorical practices unfold as a process of oscillation (Figure 1, i) and interact as bundles (Figure 1, ii).

### **Rhetorical Practices that Constitute Transcendence (Figure 1, A-D)**

Our framework extends understanding of transcendence by highlighting the rhetorical practices

that constitute it. We found rhetorical practices of Ordering [Figure 1, B] (arguments that contradictory poles are interrelated); Aspiring [A] (a powerful vision of the future in relation to contradiction); Signifying [C] (arguments that the organization is more significant than any particular paradoxical pole); and Embodying [D] (arguments centred on individuals who encompass both paradoxical poles). To further understand how these practices constructed transcendence our findings also surfaced three enabling features that defined them. First, were the different foci underlying these practices. We show that transcendence entails a focus on the poles of the paradox (i.e., its ‘content’; Figure 1) and, more broadly, the organization and individuals who form the ‘context’ of that performing paradox. Our theorization of transcendence as entailing multiple foci offers an expanded depiction of what this response entails. Paradox theory has generally focused on how the relationship between paradoxical poles is structured (e.g., Abdallah et al., 2011; Clegg et al., 2002; Jarzabkowski et al., 2013; Jay, 2013). This relationship between the paradoxical poles is expanded on here in relation to transcendence through Ordering and Aspiring practices. For instance, Aspiring provides novel insight regarding how the relationship between paradoxical poles can be constructed through emphasizing the future. However, our framework moves beyond this existing focus to also explore the importance of a broader focus on the paradoxical context. For example, we illustrate for the first time how an organization that encompasses the poles of a performing paradox, when viewed as more important than any particular objective, can become a higher plane of understanding (Kraatz & Block, 2008). Further, Embodying practices suggest how persuasive references to particular individuals - or even persuasive discourses of self (Alvesson, 1993, p.1009) - are part of transcendence. This provides a contrasting perspective to current theorizations within the paradox literature, which has largely instead focused on individuals (usually leaders) in relation to structure (Smith, 2014) and cognition (Miron-Spektor et al., 2011 Smith & Tushman, 2005).

Time was the second enabling feature our findings surfaced, with the rhetorical practices variably emphasizing both change and continuity (Figure 1, A-D; Table 4). Despite existing



paradox studies mentioning the importance of time (Smith & Lewis, 2011; Poole & Van de Ven, 1989), different temporal emphases have rarely been studied as part of responses to paradox. Indeed, the notion of change and continuity has been more frequently identified as a source of contradiction itself (e.g., Slawinski & Bansal, 2015) rather than as a response. Our framework thus extends discussions of the role of time in paradox theory through showing that both continuity and change are important to transcending performing paradoxes, with their use across multiple practices forming a reinforcing duality (Farjoun, 2010; Sonenshein, 2010).

Third, integrating and differentiating paradoxical poles are central to paradox theory (Lawrence & Lorsch, 1967; Poole & Van de Ven, 1989; Smith & Lewis, 2011). In relation to “distance” as an enabling feature of the rhetorical practices our findings (Table 4) reflect recent studies that show that simultaneously differentiating *and* integrating paradoxical poles is important (Andriopoulos & Smith, 2009; Smith & Tushman, 2005; Smith 2014). Our findings show that the distance (or lack thereof) between the paradoxical poles themselves is not the only important consideration. For example, Signifying shows that indirectly reducing the distance between actors and organizational context of the paradox is important, as this in turn reduces the distance between actors and the all paradoxical poles that the organization encapsulates (see Findings Part 1). Furthermore, while the paradox literature has tended to focus on this issue of differentiation/integration, our framework shows that this consideration of distance is only one of many enabling features that enable transcendence.

Our multi-faceted theorization of transcendence thus suggests that rhetorical practices have enabling features of distance, time and focus that have considerable constructive potential (Heracleous & Barrett, 2001). Rhetorical theory already suggests that narrow scope (paradoxical content) versus wide scope (paradoxical context) (Sillince, 2002); temporality, including change versus continuity (Poulakos, 1983; Suddaby & Greenwood, 2005); and, reduced versus expanded distance between paradoxical poles (Sillince, 2005) are all important for ensuring rhetoric is persuasive. Indeed, these underlying features of rhetoric account for the distinct configurations

of time and space (distance) that create tragic, comic, or epic emotional effects of stories (Bakhtin, 1981). More abstractly, conceptualizations of aspects of our world such as the moral, aesthetic, technological, and social can be separated or compressed together using rhetoric (Linstead, 2001). While rhetorical theory thus suggests the malleability of these underlying features of focus, time, and distance, these concepts have not however previously been brought together in studies of organizational paradoxes. Our framework thus highlights how along with the importance of considering the distance between paradoxical poles (a primary emphasis of the existing paradox literature) the paradoxical context (individuals/organization) and multiple temporalities are also explanatory of and crucial to the practice of transcendence.

### **Constructing Moments of Transcendence: Explaining the Arrows**

We now theorize the arrows (Feldman & Orlikowski, 2011) in our framework to develop a dynamic picture of how transcendence is constructed. First, we conceptualize working through paradox (Clegg et al., 2002; Luscher & Lewis, 2008) as an ongoing dynamic process of oscillation between aspects of the paradox and moments of transcendence (Follett, 1941) (Figure 1, i). Transcendence is thus depicted as a dynamic constantly unfolding process (Chia & Holt, 2006) rather than a static final outcome. Second, we show how these moments of transcendence involve rhetorical practices being bundled (Figure 1, ii), highlighting how this bundling involves juxtaposing opposite elements (time and distance) and bringing together multiple foci.

**Oscillation and moments of transcendence (Figure 1, i).** Rather than complete resolution, our illustrative vignettes and framework, therefore, show transcendence as an ongoing dynamic oscillation (see Figure 1, i). Rhetorical practices enabled the paradox to be transcended before this leads to another experience of the paradox. We thus speak of ‘moments of transcendence’, conceptualizing transcendence as an ongoing process of dynamic micro-adjustments (Jarzabkowski & Lê, forthcoming) that enable experiences of paradox(es) to be continuously (and dynamically) worked through (Clegg et al., 2002) moment by moment in an ongoing fashion (Chia & Holt, 2006). Rather than complete synthesis or resolution of

performing paradoxes (which paradox theory suggests is impossible or even undesirable) such a conceptualization of transcendence is aligned with the philosophical foundation of paradox theory (Lewis, 2000). This framework differs from other studies that have shown how transcendence is transitory and self-defeating (Abdallah et al., 2011). While we build on Abdallah et al.'s (2011) observation that transcendence is only temporary, instead of showing large shifts in response over time away from transcendence, we theorize that moments of transcendence can lead to further moments of transcendence, building up ongoing layers of transcendence and 'entrenching' it as a response (Jarzabkowski & Lê, forthcoming).

Our findings suggest that this oscillation between experiences of paradox and moments of transcendence enables organizational actors to enact shifts in focus, further highlighting the importance of the multiple foci inherent within the rhetorical practices. Namely, transcendence involved at different times both directly responding to the particular aspect of a paradox currently being encountered (e.g., responding directly to an aspect of the tension at the individual level with an Embodying response) or indeed a shift in focus (e.g., shifting focus from the tension at the individual level towards a Signifying response that emphasizes the organization). This is aligned with the point Harmon et al. (2015) make that the complexity of rhetorical argumentation enables actors to both remain within but also to shift between, levels (e.g., micro/macro) as required. Finally, we also see how the particular form a paradox takes in a local setting unfolds in relation to, and overlaps with, the specific response to it (and vice-versa). For instance, the decision about what rhetorical practices to enact is made in relation to the aspect of paradox experienced during that particular oscillation, which in turn influences the next aspect of the paradox that unfolds. Our framework thus is aligned with recent theorizations regarding the entangled and overlapping relationship between paradox and response (Beech et al., 2004; Jarzabkowski & Lê, forthcoming) and contrasts with the dominant tendency to separate a clearly identified (and almost static) paradox and a response to it (e.g., Andriopolous & Lewis, 2009).

**The variable relationships between rhetoric practices (Figure 1, ii).** As part of this

oscillation process, each moment of transcendence entails interactions between rhetorical practices. Rather than practices being used in isolation constructing moments of transcendence usually required *bundles* of practices, often blurring the boundaries between them (Findings, Part 2). We did not find a clearly repeated sequence regarding how these rhetorical practices interacted. This is aligned with Holt & Macpherson's (2010) point that the power of rhetorical practices comes not from some 'correct' sequencing (cf. Green et al., 2004), but rather that they be considered in concert. This has similarity with seminal studies of how rhetoric unfolds in organizations, whereby organizational actors are shown to variably and flexibly draw on an array of rhetorical resources (Watson, 1995). Namely, exactly how specific rhetorical practices were bundled to construct transcendence remained flexible and variable.

While any rhetorical practice can be combined with any other, drawing from our findings we can theorize these interconnections created juxtapositions in relation to foci, time and distance. Namely, as Whittle et al. (2008) show, contradictory rhetoric unfolds as a practical concern as part of the reflective shifts made by actors. First, bundling of rhetorical practices enabled paradox to be addressed via multiple foci simultaneously. For instance, bundling a focus on the organization (Signifying) and individual (Embodying) provided a stronger basis for a moment of transcendence than a singular focus might (Findings Part 1, Vignette 1); effectively allowing the paradox to be responded to from multiple levels (Harmon et al., 2015) or angles (Whittle et al., 2008). Second, a general repeatable pattern did emerge as particularly prevalent (as shown in our Findings, Part 2), whereby rhetorical practices were bundled in a way that meant that aspects of time and distance were directly juxtaposed; with a strong emphasis on change/maintaining distance frequently being closely entwined with a corresponding emphasis on continuity/reducing distance. For example, organizational actors might simultaneously draw on continuity with the past while working towards a vision of change in the future, as in Vignette

1 (Findings Part 2 above).<sup>1</sup> This juxtaposition helps ensure balance is maintained, with transcendence entailing a dynamic balance between rather than a dominant emphasis on either change/continuity (Farjoun, 2010) or either separation/integration (Andriopoulos & Lewis, 2009). Consequently, we propose that bundling rhetorical practices to enable different emphases of distance and temporality to be juxtaposed is critical to transcendence, with the practice of transcendence itself entailing dynamic dualities (Feldman & Orlikowski, 2014).

## **Conclusion**

This paper outlines how transcendence unfolds through the rhetorical practices of organizational actors. First, the rhetorical practices we identify provide a novel and richly detailed depiction of transcendence of performing paradoxes, broadening our conceptualization of this critical response (Chen & Miller, 2010; Lewis, 2000). Through our focus on organizational (rhetorical) practices our study moves beyond both existing generalized conceptualizations of transcendence (Farjoun, 2010; Poole & Van de Ven, 1989) and a prominent focus on the cognitive frames of leaders as being explanatory of this response (Bartunek, 1984; Smith & Tushman, 2005). Ours is thus an expanded depiction of transcendence; for example, Signifying (and its focus on the organizational context of the paradox) is a way of transcending paradox not previously explored within the paradox literature. Second, rather than conceptualizing transcendence as some final outcome, our framework shows it unfolding as a “continuing process” (Follett, 1941, p.186), which we label oscillation. This illustrates working through aspects of the paradox via layers of moments of transcendence. Other studies have shown the dynamic shifts between different response strategies, such as Accepting and Splitting, either during different time periods (e.g., Jay, 2013) or within in micro-interactions (Jarzabkowski & Lê, forthcoming; Jarzabkowski et al., 2013; Luscher & Lewis, 2008). As part of this it has been shown how transcendence ultimately

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<sup>1</sup> This suggested importance of juxtaposing these seemingly contradictory emphases in constructing transcendence was further shown in how Ordering rhetoric was used to simultaneously emphasize seemingly oppositional elements of time and distance (see Table 4 and Findings, Part 1).

fails over time (Abdallah et al., 2011). Our study instead demonstrates the dynamism and continuous work involved in sustaining or “entrenching” (Jarzabkowski & Lê, 2013) a singular transcendence response. Third, we show how transcendence is constructed through bundling together multiple foci and juxtaposing different elements of time and distance. This expands our understanding regarding the importance and multiple roles of these enabling features in working through paradox. It also provides a complex picture of transcendence as itself a constant unfolding dynamic duality (Feldman & Orlikowski, 2014) whereby conflicting emphases are dynamically balanced. Highlighting these juxtapositions inherent in transcendence further instantiates the inherent complexity of working through paradox and addresses Jarzabkowski and Lé (forthcoming) call for study into how *bundles* of practices, such as those we have outlined here, construct particular responses to paradox.

A transcendence response that moves beyond simply accepting paradox to transforming it into something more accommodating and “workable” is likely to be attractive to managers looking for ways to proactively manage contradictions (Clegg et al., 2002; Lewis, 2000; Lusher & Lewis, 2008). Our framework provides detailed insight into how transcendence of such paradoxes can be achieved through identifying its specific underlying building blocks or features. Our findings suggest that leaders and managers working in paradoxical settings (Knight & Paroutis, forthcoming; Lewis et al., 2014) should pay attention to the constructive potential of their talk about the contradictions they face because such talk is central to collective action in relation to such tensions (Balogun et al., 2013; Heracleous & Barrett, 2001). The pervasiveness of the rhetorical practices we identified shows how leaders can move from paradoxical thinking (cognition) to building a collective rather than a top-down response to paradox.

This study focused on transcending performing paradoxes. Future research could explore transcendence in relation to these different types of paradoxes, such as belonging (identity) and organizing (structure) paradoxes (Jarzabkowski et al., 2013; Smith & Lewis, 2011). It would be

fruitful to see whether as part of the oscillation dynamic described here certain paradoxes (e.g., an organizing paradox) might be unable to be transcended even as others are (e.g., an performing paradox). Second, in our empirics there was a high degree of consistency across the different organizational actors with regard to rhetorical practices. This does not mean that these actors - such as scientists, investors and managers - had the same definitions of success. For example, all actors might reference the future (Aspiring practices), even as they did so from different perspectives. Yet it was the fact that we were surprised to find such strong transcendence practices across our cases which prompted this study. In our cases this is perhaps related to the fact that these organizations already had well-established transcendence responses in place at the time of data collection. In addition, this consistency across stakeholder groups is perhaps explained by the degree of success associated with the three organizations studied here, none of which were experiencing major crises or pressing resource constraints that exacerbated tension (Smith & Lewis, 2011). However, not all organizations can transcend paradoxes and, consequently, another fruitful area for future research would be to study contexts where transcendence is in the process of being establishing or is even being resisted by some groups (Lewis et al., 2014). This will enable a greater variety of rhetorical practices of different groups of actors within a single organizational context to be explored along with what happens when moments of transcendence are sporadic rather than consistently built as in our cases (see Findings). Finally, we provide a conceptualization of transcendence aligned with the philosophical tenants of paradox theory that paradoxes cannot be tidily resolved. Rather any apparent synthesis is simply one moment in an ongoing process of working through contradiction (Clegg et al., 2002; Smith & Lewis, 2011). Thus, generally, we hope that this article prompts further research into transcendence by paradox scholars.

## References

- Abdallah, C., Denis, J.-L., & Langley, A. 2011. Having your cake and eating it too: Discourses of transcendence and their role in organizational change dynamics. *Journal of Organizational Change Management*, 24(3): 333-348.

- Abdallah, C., & Langley, A. 2013. The double edge of ambiguity in strategic planning. *Journal of Management Studies*, 51(2): 235-264.
- Alvesson, M. 1993. Organizations as rhetoric: Knowledge-intensive firms and the struggle with ambiguity. *Journal of Management studies*, 30(6): 997-1015.
- Andriopoulos, C., & Lewis, M.W. 2009. Exploitation-exploration tensions and organizational ambidexterity: Managing paradoxes of innovation. *Organization Science*, 20(4): 696-717.
- Aristotle. 1954. *The Rhetoric and the Poetics of Aristotle*. New York: Modern Library College Editions.
- Bakhtin, M. 1981. *Forms of Time and of the Chronotope in the Novel*. Austin: Uni. Texas Press.
- Bansal, P., Bertels, S., Ewart, T., MacConnachie, P., & O'Brien, J. 2012. Bridging the research-practice gap. *Academy of Management Perspectives*, 26(1): 73-92.
- Bartunek, J.M. 1984. Changing Interpretive Schemes and Organizational Restructuring: The Example of a Religious Order. *Administrative Science Quarterly*, 29(3): 355-372.
- Beech, N., Burns, H., Caestecker, L.D., MacIntosh, R., & MacLean, D. 2004. Paradox as invitation to act in problematic change situations. *Human Relations*, 57(10): 1313-1332.
- Benner, M.J., & Tushman, M. L. 2003. Exploitation, exploration, and process management: The productivity dilemma revisited. *Academy of Management Review*, 28(2): 238-256.
- Binder, A. 2007. For love and money: Organizations' creative responses to multiple environmental logics. *Theory and Society*, 36: 547-571.
- Bitzer, L.F. 1968. The rhetorical situation. *Philosophy and Rhetoric*, 1(1): 1-14.
- Burke, K. 1989. *A Rhetoric of Motives*. Berkeley: University of California Press.
- Cameron, K. S. 1986. Effectiveness as paradox: Consensus and conflict in conceptions of organizational effectiveness. *Management science*, 32(5): 539-553.
- Carter, C., & Mueller, F. 2002. The 'long march' of the management modernizers: Ritual, rhetoric and rationality. *Human Relations*, 55(11): 1325-1354.
- Chen, M.-J. 2008. Reconceptualizing the competition—cooperation relationship a transparadox perspective. *Journal of Management Inquiry*, 17(4): 288-304.
- Cheney, G., Christensen, L.T., Conrad, C., & Lair, D. J. 2004. Corporate rhetoric as organizational discourse. In D. Grant, C. Hardy, C. Oswick, & L. Putnam (Eds.), *The Sage Handbook of Organizational Discourse*: 79-105. London: Sage.
- Clegg, S. R., Cunha, J. V., & Cunha, M. P. 2002. Management paradoxes: A relational view. *Human Relations*, 55(5): 483-503.
- Colyvas, J. A., & Powell, W.W. 2006. Roads to institutionalization: The remaking of boundaries between public and private science. *Research in Organizational Behavior*, 27: 305-353.
- Crosswhite, J. 1989. Universality in rhetoric: Perelman's universal audience. *Philosophy & Rhetoric*, 22(3): 157-173.
- Crown Research Institute Taskforce. 2010. *How to enhance the value of New Zealand's investment in Crown Research Institutes*. Wellington, New Zealand.
- Dameron, S., & Torset, C. 2014. The discursive construction of strategists' subjectivities: Towards a paradox lens on strategy. *Journal of Management Studies* 51(2): 291-319.
- Davenport, S., & Leitch, S. 2005. Circuits of power in practice: Strategic ambiguity as delegation of authority. *Organization Studies*, 26(11): 1603-1623.
- Davenport, S., Leitch, S., & Rip, A. 2003. The 'user' in research funding negotiation processes. *Science and Public Policy*, 30(4): 239-250.
- Delmestri, G. 2006. Streams of inconsistent institutional influences: Middle managers as carriers of multiple identities. *Human Relations*, 59(11): 1515-1541.
- Denis, J.-L., Langley, A., & Rouleau, L. 2007. Strategizing in pluralistic contexts: Rethinking theoretical frames. *Human Relations*, 60(1): 179-215.
- De Rond, M., & Miller, A. N. 2005. Publish or perish bane or boon of Academic academic Lifelife? *Journal of Management Inquiry*, 14(4), 321-329.
- Eisenhardt, K.M. 1989. Building theories from case study research. *Academy of Management Review*, 14(4): 532-550.
- Eisenhardt, K.M., Furr, N.R., & Bingham, C.B. 2010. Microfoundations of performance: Balancing efficiency and flexibility in dynamic environments. *Organization Science*, 21(6): 1263-1273.
- El-Sawad, A., Arnold, J., & Cohen, L. 2004. 'Doublethink': The prevalence and function of contradiction in accounts of organizational life. *Human Relations*, 57(9): 1179-1203.



- Erkama, N., & Vaara, E. 2010. Struggles over legitimacy in global organizational restructuring: A rhetorical perspective on legitimation strategies and dynamics in a shutdown case. *Organization Studies*, 31(7): 813-839.
- Farjoun, M. 2010. Beyond dualism: Stability and change as a duality. *Academy of Management Review*, 35(2): 202-226.
- Feldman, M. & Orlikowski, W. 2011. Theorizing practice and practicing theory. *Organization Science*, 22 (5): 1240-1253.
- Follett, M.. 1941. *Dynamic Administration: The collected works of Mary Parker Follett*. Metcalf, H.C. & Urwick, L. (Eds.). New York: Harper and Brothers Publishers.
- Greenwood, R., Raynard, M., Kodeih, F., Micellota, E., & Lounsbury, M. 2011. Institutional complexity and organizational responses. *Annals of the Academy of Management*, 5(1): 1-55.
- Harmon, D.J., Green, S.E.Jr, Goodnight, T.G. 2015. A model of rhetorical legitimation: The structure of communication and cognition underlying institutional maintenance and change. *Academy of Management Review*, 40(1): 76-95.
- Hatch, M.J., & Erlich, S.B. 1993. Spontaneous humour as an indicator of paradox and ambiguity in organizations. *Organization Studies*, 14(4): 505-526.
- Heracleous, L., & Barrett, M. 2001. Organizational change as discourse: Communicative actions and deep structures in the context of information technology implementation. *Academy of Management Journal*, 44(4): 755-778.
- Jarzabkowski, P., & Lê, J. Forthcoming. We have to do this and that? You must be joking. Constructing and responding to paradox through humor. *Organization Studies*.
- Jarzabkowski, P., Lê, J., & Van de Ven, A.H. 2013. Responding to competing strategic demands: How organizing, belonging, and performing paradoxes coevolve. *Strategic Organization*, 11: 245-280.
- Jarzabkowski, P., & Sillince, J. 2007. A rhetoric-in-context approach to building commitment to multiple strategic goals. *Organization Studies*, 28(11): 1639-1665.
- Jarzabkowski, P., Sillince, J., & Shaw, D. 2010. Strategic ambiguity as a rhetorical resource for enabling multiple interests. *Human relations*, 63(2): 219-248.
- Jay, J. 2013. Navigating paradox as a mechanism of change and innovation in hybrid organizations. *Academy of Management Journal*, 56(1): 137-159.
- Kets de Vries, M.F.R., & Miller, D. 1987. Interpreting organizational texts. *Journal of Management Studies*, 24: 233-247.
- Knight, E., & Paroutis, S. Forthcoming. Becoming salient: The TMT leader's role in shaping the interpretive context of paradoxical tensions. *Organization Studies*.
- Kraatz, M. S., & Block, E. 2008. Organizational implications of institutional pluralism. In R. Greenwood, C. Oliver, K. Sahlin, & R. Suddaby (Eds.), *The SAGE Handbook of Organizational Institutionalism*. 243-275. London: Sage.
- Lawrence, P.R. & Lorsch, J.W. (1967). *Organization and environment: Managing differentiation and integration*. Boston: Harvard University.
- Leitch, S., & Davenport, S. 2005. The politics of discourse: Marketization of the New Zealand science and innovation system. *Human Relations*, 58(7): 891-912.
- Lewis, M.W. 2000. Exploring paradox: Toward a more comprehensive guide. *Academy of Management Review*, 25(4): 760-776.
- Lewis, M.W., Andriopoulos, C., & Smith, W.K. 2014. Paradoxical leadership to enable strategic agility. *California Management Review*, 56(3): 58-77.
- Lewis, M.W., & Grimes, A. I. 1999. Metatriangulation: Building theory from multiple paradigms. *Academy of Management Review*, 24(4): 672-690.
- Lewis, M.W., & Smith, W.K. 2014. Paradox as a metatheoretical perspective: Sharpening the focus and widening the scope. *The Journal of Applied Behavioral Science*, 50: 127-49.
- Linstead, S. 2001. Rhetoric and organizational control: A framework for analysis. In R. Westwood, & S. Linstead (Eds.), *The Language of Organization*. 217-240. London: Sage.
- Luscher, L.S., Lewis, M.W., & Ingram, A. 2006. The social construction of organizational change paradoxes. *Journal of Organizational Change Management*, 19(4): 491-502.
- Luscher, L.S., & Lewis, M.W. 2008. Organizational change and managerial sensemaking: Working through paradox. *Academy of Management Journal*, 51(2): 221-240.
- March, J. (1991). Exploration and exploitation in organizational learning. *Organization Science*, 2(1), 71-87.

- Meyer, M. 2003. Academic entrepreneurs or entrepreneurial academics? Research-based ventures and public support mechanisms. *R&D Management*, 33(2): 107-115.
- Michaud, V. 2014. Mediating the paradoxes of organizational governance through numbers. *Organization Studies*, 35(1): 75-101.
- Miles, M.B., & Huberman, A.M. 1994. *Qualitative data analysis : an expanded sourcebook* (2nd edition ed.). Thousand Oaks, CA: Sage.
- Miron-Spektor, E., Gino, F., & Argote, L. 2011. Paradoxical frames and creative sparks: Enhancing individual creativity through conflict and integration. *Organizational Behavior and Human Decision Processes*, 116(2): 229-240.
- Mueller, F., Sillince, J.A., Howorth, C. & Harvey, C. 2004. A rounded picture as what we need: Rhetorical strategies, arguments and the negotiation of change in a UK Hospital Trust. *Organization Studies*, 25: 75-93.
- Murnighan, J.K., & Conlon, D.E. 1991. The dynamics of intense work groups: A study of British string quartets. *Administrative Science Quarterly*, 36: 165-186.
- Papachroni, A., Heracleous, L., & Paroutis, S. Forthcoming. In pursuit of ambidexterity: Managerial reactions to innovation-efficiency tensions. *Human Relations*.
- Poole, M.S., & Van de Ven, A. 1989. Using paradox to build management and organization theories. *Academy of Management Review*, 14(4): 562-578.
- Poulakos, J. 1983. Toward a sophistic definition of rhetoric. *Philosophy & Rhetoric*, 16: 35-48.
- Quinn, R.E. 1988. *Beyond Rational Management: Mastering the Paradoxes and Competing Demands of High Performance*. Jossey-Bass.
- Rip, A. 2004. Strategic research, post-modern universities and research training. *Higher Education Policy*, 17: 153-166.
- Sauermann, H., & Stephan, P. 2013. Conflicting logics? A multidimensional view of industrial and academic science. *Organization Science*, 24(3): 889-909.
- Schmitt, A., & Raisch, S. 2013. Corporate Turnarounds: The Duality of Retrenchment and recovery. *Journal of Management Studies*, 50(7): 1216-1244.
- Sillince, J.A., Jarzabkowski, P., & Shaw, D. 2012. Shaping strategic action through the rhetorical construction and exploitation of ambiguity. *Organization Science*, 23(3): 630-650.
- Sillince, J.A. 2002. A model of the strength and appropriateness of argumentation in organizational contexts. *Journal of Management Studies*, 39(5): 585-618.
- Sillince, J.A. 2005. A contingency theory of rhetorical congruence. *Academy of Management Review*, 30(3): 608-621.
- Slawinski, N., & Bansal, P. (2015). Short on time: Intertemporal tensions in business sustainability. *Organization Science*, 26(2), 531-549.
- Smith, W.K. 2014. Dynamic decision making: A model of senior leaders managing strategic paradoxes. *Academy of Management Journal*, 57(6): 1592-1623
- Smith, W.K., Binns, A., & Tushman, M.L. 2010. Complex business models: Managing strategic paradoxes simultaneously. *Long Range Planning*, 43: 448-461.
- Smith, W.K., Gonin, M., & Besharov, M.L. 2014. Managing social-business tensions: A review and research agenda for social enterprise. *Business Ethics Quarterly*, 23(3): 407-442.
- Smith, W.K., & Lewis, M.W. 2011. Toward a theory of paradox: A dynamic equilibrium model of organizing. *Academy of Management Review* 36(2): 381-403.
- Smith, W.K., & Tushman, M.L. 2005. Managing strategic contradictions: A top management model for managing innovation streams. *Organization Science*, 16(5): 522-536.
- Sonenshein, S. 2010. We're changing—Or are we? Untangling the role of progressive, regressive, and stability narratives during strategic change implementation. *Academy of Management Journal*, 53(3): 477-512.
- Stone, M., & Brush, C.G. 1996. Planning in ambiguous contexts: The dilemma of meeting needs for commitment and demands for legitimacy. *Strategic Management Journal*, 17: 633-652.
- Suddaby, R., & Greenwood, R. 2005. Rhetorical strategies of legitimacy. *Administrative Science Quarterly*, 50(1): 35-67.
- Symon, G. 2005. Exploring resistance from a rhetorical perspective. *Organization Studies*, 26(11): 1641-1663.
- Tertiary Education Commission. 2008. *Centres of Research Excellence*, Vol. 2008.
- Tushman, M. L., & O'Reilly, C. A. 1996. Ambidextrous organizations: Managing evolutionary and

- revolutionary change. *California Management Review*, 38(4): 8–30.
- Vince, R., & Broussine, M. 1996. Paradox, defense and attachment: Accessing and working with emotions and relations underlying organizational change. *Organization Studies*, 17: 1-21.
- Voronov, M., & Yorks, L. 2015. "Did you notice that?" Theorizing differences in the capacity to apprehend institutional contradictions. *Academy of Management Review*. online before print. amr. 2013.0152.
- Watson, T. J. 1995. Rhetoric, discourse and argument in organizational sense making: A reflexive tale. *Organization Studies*, 16(5): 805-821.
- Werner, C. M., & Baxter, L. A. 1994. Temporal qualities of relationships: Organismic, transactional, and dialectical views. In M. Knapp, & G. Miller (Eds.), *Handbook of interpersonal communication*. Thousand Oaks, CA: Sage.
- Westenholz, A. 1993. Paradoxical thinking and change in the frames of reference. *Organization Studies* 14(1): 37-58.
- Whittle, A., Mueller, F., & Mangan, A. 2008. In search of subtlety: Discursive devices and rhetorical competence. *Management Communication Quarterly*, 22(1): 99-122.
- Yin, R. K. 2009. *Case study research: Design and methods* (4th ed.). Thousand Oakes: Sage

**Table 1: Case Descriptions**

	Case Description	Key Characteristics (2010)
<b>TechSpinOut</b>	A spin-out commercializing a basic science platform with: university-based scientist founders as shareholders and critical to ongoing product development (who also prioritize a NZ-centric approach) as well as private equity investors and University shareholders.	<b>Size:</b> approx. 10 FTEs; revenue < 1 mil. <b>Age:</b> < seven years old.
<b>CRI1</b>	CRIs are government owned companies that carry out research and pursue excellence (they employ world-class scientists), for the good of NZ (e.g., supporting the economic health of their sector), while being financially viable.	<b>Size:</b> > 300; funding/revenue > 50 million. <b>Age:</b> established 1992
<b>CoRE1</b>	University based collaborative networks focused on ‘excellent [...] research’ that ‘contributes to National Development’ and has ‘an impact’ (Tertiary Education Commission. 2008). Initially required to be self-funding after a number of years, the CoRE is run and made up of world-leading scientists and are funded (and report to) government.	<b>Size:</b> < 50 scientists; funding approx. 30 mil. <b>Age:</b> established 2001

**Table 2: Data Collected**

	Data	
	Interviews (2009-2010)	Secondary data
<b>TechSpinOut</b>	CEO; Scientist Founders[2]; University shareholder; Directors[2]  <b>Total:</b> 6 interviews	Video media interview; media articles; press releases; website  <b>Total:</b> 11 documents, 33 pages.
<b>CRI1</b>	CEO; Management[4]; Scientists[4]; Board member; Client/Spin-out  <b>Total:</b> 11 interviews	Annual reports; newsletters; (select) media articles & press releases; CEO statements  <b>Total:</b> 39 documents, 731 pages.
<b>CoRE1</b>	Scientist Leaders[3]; Scientist Members[3]; Board member; CoRE’s administrative manager; Senior Manager & Science School Manager [University]; PhD student  <b>Total:</b> 12 interviews	Reports; newsletters; (select) media articles  <b>Total:</b> 20 documents; 454 pages.
<b>Industry</b>	Public sector Managers[3]; Venture capitalists[2]; University Manager; Science sector commentators[3]; Collaborator with CoRE; Leaders of other CoREs[3]; Leader of other CRIs[1]; Manager of a high-tech firm[1]  <b>Total:</b> 15 interviews	Industry-level secondary data  Numerous; including 7 documents on CoREs generally; 5 documents/reports on CRIs generally; plus media and blog article son NZ science system.

**Table 3: Performing Paradox (multiple aspects emphasized)**

Paradoxes	Representative Data (highlighting variance in how the paradoxes were expressed)
<b>Science Excellence &amp; impact</b>	<ul style="list-style-type: none"> <li>• Broad articulation of the paradox between science/commercialization: ‘Tech-start-ups are led by peoples whose prime reason for coming to work is science...So you have intrinsically in early stage technology driven ventures a tension between the commercialization and the science. Sometimes the commercialization gets in the way of the science’ (TechSpinOut, Director 1)</li> <li>• Manifestation of the paradox at the individual level (everyday work): ‘The commercial works turns members of the team into factory workers...Finding that balance between dumbing down your scientists with the factory-type commercial work...and managing to push those technological boundaries is very difficult.’ (CRI1, Scientist)</li> <li>• Focus on resourcing: In the traditional academic sense business is the bad guys. Because there’s different timelines, different cultures and all that sort of stuff and ideally from an academic view you want to funnel money back into blue sky research. (PhD Student, CoRE 1).</li> </ul>
<b>Commerce &amp; Social</b>  (contradictory forms of impact)	<ul style="list-style-type: none"> <li>• Individual-level: “Scientists tend to see business as dirty: selling stuff is actually sort of icky” (TechSpinOut, CEO)</li> <li>• Broad articulation of the underlying paradox: ‘[I]n the past people have seen – it’s not even two different ends of a spectrum because [...] it’s been two different planets almost. ‘This is the public good planet and this is the making money planet.’ (CRI1, Manager)</li> <li>• Supporting versus competing with industry: ‘Our plan was to show how we were going to be self-funding after six years ...and we had a plan to generate enough spin-off activity to fund ourselves [commercial]. [But] we could stifle some engagement with industry if we sought to be self-funding’ (CoRE1, Leader)</li> </ul>

**Table 4: Rhetorical Practices and their Enabling Features: Focus on the Relationship between the Paradoxical Poles**

Practices	Time	Distance	Actions entwined with rhetoric
<b>Ordering</b>  poles as interrelated in a reinforcing manner	<b>A. Continuity &amp; change</b> E.g., commercial/social poles; plus other objectives: <i>If recession hit us...our emphasis would move to the financial. We always have to have the four objectives but the emphasis is going to move from one side of the spectrum to the other.</i> (Manager, CRI1)	<b>B. Reducing &amp; maintaining distance</b> E.g., commercial and social: <i>There's certainly a difference in perspective [maintaining distance, A] ... but there's general a common goal to achieve good science in a NZ context [reducing distance, B]. Preferably, but not necessarily, of relevance to NZ.</i> (University Manager, CoRE1).	<b>C. Actions to incorporate all poles (balance):</b> E.g., commercial & public good: <i>'An interesting thing CRI1's done is [project X]. That generated substantially better industry engagement. So it's been able to lift its own financial performance and increase its public good by taking a really creative approach to the problem.</i> (Public Sector Manager)
<b>Aspiring</b>  a powerful vision of the future in relation to the paradox	<b>D. Change</b> E.g., Science excellence impact poles: <i>[CRI1] has the potential to create something that is bigger ... we've got the potential to make something that going to be really good. Really good for NZ, in that case energy supply but also in terms of wealth creation.</i> (Leader, CoRE1)	<b>E. Maintaining Distance</b> E.g., Science excellence/science impact: <i>'There's a long term expectation that you get your money back...in a galaxy far far away from here but there's the equity event contemplated</i> (Director, TechSpinOut).	<b>F. Actions taken in reference to vision</b> E.g., science excellence/science impact: <i>'What we have our sights on now is - it's not good enough to tell the story in the way we've told it. What we now need is some economic measures. We need an economist to come in and fully cost what we've done. ... "here's the balance sheet for the [CoRE1]."</i> (Leader, CoRE1)
<b>Signifying</b> organization as more significant than any specific paradoxical pole	<b>G. Continuity</b> (significance built over time) <i>'CRI1 has very great history going back decades to its government department days...wonderful scientists, wonderful IP...it's a business with a fundamental great heart...that makes it worthwhile'</i> (Board Member, CRI1)	<b>H. Reducing distance</b> E.g., Science excellence/impact: <i>I cannot be anything but grateful for the existence of the CoRE. I know how hard it [career] would have been without it...I then expect to give in return [i.e., contribute to non-research activities]'</i> (Scientist, CoRE1)	<b>I. Actions prioritize organization</b> <i>We went through a process of identifying a particular course of action and executing it. Not necessarily because that was what each of those individual shareholders had in their view as desirable, but because that was the course of action best for TechSpinOut</i> (CEO, TechSpinOut)
<b>Embodying practices</b> individuals who encompass both paradoxical poles	<b>J. Continuity</b> (continuity built over time) E.g., Commercial/Social; plus other objectives: <i>I had this debate with recruitment. I said 'when you decide their post-doc work's equally relevant; ask which one had the paper round when they were a kid. Take the one with the paper round. Someone who's shown a bit of business initiative at all'... Say 'what is their drive?'</i> (Scientist, CRI1)	<b>K. Reducing Distance</b> E.g., Science excellence vs other: <i>'There's a tension there [between science &amp; other demands]. But we do expect people to do those extra things. Interviewer: So it's almost, because of what's given [financial support etc.], expecting more of your members?'. Manager: Yes we are a bit greedy that way.'</i> (Leader, CoRE1)	<b>L. Actions to promote or train individuals who embody paradox</b> E.g., Commerce vs. other: <i>'With doctorate scientists out of university they've had no exposure to business and just want to continue with their science. So we run these in-house programmes so they come away understanding business and science. Then they can start to bring the two together'</i> (Manager, CRI1)

Figure 1: Constructing Moments of Transcendence

