

**THE LIMITS OF PIVOTING: A CULTURALLY-INFORMED MODEL OF RESOURCE
COMMITMENTS DURING REPEATED ORGANIZATIONAL TRANSFORMATION**

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ABSTRACT

In contrast to models of organizational transformation that focus on one-time episodes of change, this study reveals limits to the number of transformations an organization can make without losing the support of key stakeholder groups. To better understand the process of repeated transformation, we study an extreme case of a medical technology startup with a history of pivoting, focusing on the degree to which employees and investors continued to support the venture. Although new ventures are often advised to be highly adaptive, we find that repeated pivoting introduces relational liabilities for even highly flexible organizations. Drawing on our analysis, we develop a culturally-informed process model of resource commitments that reveals how differences in pivoting narratives and stakeholder orientations affect the flow of support from employees and investors, even as the organization repeatedly pivots. Our model contributes to existing theories of organizational transformation, offering an enriched understanding of how organizations can narratively sustain resource commitments to enable continuous adaptation.

Prior studies of organizational transformation reveal how leaders can draw on narratives which motivate change by contrasting prior and future strategies, thereby encouraging members to abandon “failed” policies and agendas (Sillince, Jarzabkowski, & Shaw, 2012). However, research linking narratives and organizational transformation has mostly focused on single episodes of change, ignoring the increasingly common situation in which organizations engage in repeated change. For example, Brown and Eisenhardt (1997: 1) referred to firms that “engage in rapid and relentless continuous change” as a means of competition and survival. Such rapid and relentless transformation is viewed as necessary for organizational survival in dynamic environments. Yet due to leaders’ ongoing involvement in initiating prior transformations, narratives of successive change which draw sharp contrasts between prior and future strategies are likely to expose those leaders’ culpability (Bartel & Garud, 2009; Mantere, Schildt, & Sillince, 2012). Although scholars have alluded to the challenges posed by successive (vs. “one-off”) instances of transformation (e.g., Balogun, Bartunek, & Do, 2015; Brown & Eisenhardt, 1997; Denis, Lamothe, & Langley, 2001), they have not yet fully considered how engagement in and justification of such change might affect sustained resource flows.

Whereas research on organizational transformation has alluded to the potential liabilities of repeated organizational change, studies of pivoting within entrepreneurial ventures tend to highlight strategic and learning benefits (Blank, 2012). Yet mounting evidence suggests that repeated pivoting is not without liabilities, even for entrepreneurial ventures. This is especially true as they start to mature. For instance, in July 2011, Netflix implemented its fourth major pivot since its founding in 1997 by announcing a bold, visionary change—that it was renaming its popular DVD-by-mail service and charging a separate fee for its streaming service, resulting in a 60% price increase. Whereas previous changes had led to tremendous success, this time the

company lost some 3 million subscribers (an approximately 20% loss) and its stock cratered from more than \$300 to \$77 a share. Reed Hastings, the CEO at the time, was widely criticized for introducing the changes, leading him to publicly express: “I messed up. I owe everyone an explanation” (Hastings, 2011). Although perhaps an extreme example, the challenges Hastings faced in narrating his company’s pivots are not atypical (Snihur & Clarysse, 2022), and illustrate how organizations may face limits to the number of times they can pivot without being penalized. Recognizing these pivoting-related limits, in their review of the lean startup method (Ries, 2011), Shepherd and Gruber (2021: 983) highlighted the need for additional research on the relationship between pivoting and sustained resource commitments over time.

Taken together, research on organizational transformation and entrepreneurship has yet to address an important theoretical and practical puzzle: the bold visionary narrative strategies best suited to facilitating organizational transformation are perhaps the most likely to break down amid the repeated transformations of entrepreneurial ventures. Specifically, we lack scholarship on the process of repeated pivoting, the narratives used to explain and justify such pivoting, and the effects of those narratives on sustained resource flows. In this study, we focus on the effects of alternative narratives and the responses of different stakeholder groups to better understand increasing or decreasing resource flows in response to repeated change. We consider the flows of two critical venture resources—human and financial—as we seek to answer the following question: *How do different and changing narratives affect employees’ and investors’ resource commitments as a venture repeatedly pivots?*

To examine this question, we conducted a longitudinal study of Respiro (a pseudonym), a publicly traded “micro-cap” venture that pivoted multiple times before and during our

fieldwork.¹ When we began collecting data, the venture lacked strategic clarity, employee and investor support was in question, and the founding entrepreneur had been replaced by an outside CEO. Despite stakeholders' consistent perceptions of upheaval, the organization and overall resource flows persisted throughout this period. The organization's small size and publicly traded status offered us unique access to its projected narratives, as well as the human and financial resource commitments it received. Drawing on our observations, we develop a culturally-informed process model of resource commitments that reveals how interactions between different pivoting narratives and stakeholder groups affect the flow of ongoing support from employees and investors, even as a venture continues pivoting. Our findings surface distinctions in the extent to which different narratives resonate with different stakeholder groups, with important implications for their resource commitments over time.

Our study and emergent model make several theoretical contributions. First, whereas prior studies of organizational transformation have established practices that are likely to assist with managing the liabilities associated with a single episode of change, our study demonstrates why those insights face boundary conditions that are untenable in the case of repeated pivots, wherein the residual effects of a prior change are likely to constrain later changes. Second, our findings provide the basis for an expansive and dynamic theory of entrepreneurial resource flows across repeated pivots, allowing us to theoretically situate the nascent concept of entrepreneurial runways. Third, we extend research which has examined interactions between stakeholders and organizations, including entrepreneurial ventures, by highlighting how stakeholder groups vary in their market pricing or communal sharing orientations toward organizations, with important consequences for sustained resource flows amid repeated change.

¹ Micro-cap ventures are listed companies that typically have market capitalizations less than US\$300 million.

THEORETICAL BACKGROUND

Repeated Organizational Transformation and Narratives

During organizational transformation, leaders require support from their key stakeholders (Bartunek et al., 1999; Gioia & Chittipeddi, 1991; Vaara et al., 2016). Management theories suggest that to acquire support, leaders' narratives must communicate the impetus for transformation and convince stakeholders of the merits of the newly proposed agenda (Suddaby & Greenwood, 2005). Narrative theory is especially suited to examining how organizational leaders attempt to influence organizational situations marked by complexity, ambiguity, and change. In their review article, Vaara et al. (2016: 496) formally defined narratives in the context of organizations as "temporal, discursive constructions that provide a means for individual, social, and organizational sensemaking and sensegiving." The temporality inherent within such narratives is evident in leaders' accounts of past events and present realities, which are used to justify transforming to an anticipated future state.

To date, scholars have primarily focused on how leaders use narratives to motivate organizational transformation in the context of single, dramatic instances of change, such as in response to a crisis (Cornelissen, Mantere, & Vaara, 2014; Vendelo & Rerup, 2009; Weick, 1988), or the introduction of a planned change agenda (Balogun & Johnson, 2004; Sonenshein, 2010). Focused on acute transitional periods, strategic change research has affirmed that a leader's ability to resolve ambiguity stems from narratives which offer a strong contrast between past problems and preferable future states alongside plausible pathways for overcoming existing constraints (Balogun & Johnson, 2004; Corley & Gioia, 2004; Gioia & Chittipeddi, 1991; Labianca, Gray, & Brass, 2000). Yet, we currently know relatively little about how leaders narratively address repeated organizational transformation, wherein they are forced to remake the

very foundations upon which their initial mantle for change was fashioned. This is a difficult and risky endeavor. In their study of a leader's attempt to reverse change once it was underway, for example, Mantere et al. (2012) found that the leader's initial justifications had residual effects that adversely influenced the extent to which stakeholders were willing to accept subsequent justifications for abandoning its implementation. Thus, when making repeated changes, leaders lose the ability to start with a "clean slate" which commonly aids transformation (Pratt, 2000; Quigley & Hambrick, 2012), and instead are forced to communicate and justify the need for successive change in ways that may, in fact, be critical of their own prior strategies.

A further complication is that as leaders attempt to explain and justify successive change, variation between and even within stakeholder groups can limit their control over how their narratives will be received. Prior studies of organizational change have attempted to highlight how differences in narratives and the process by which they are constructed can lead to varied reactions among stakeholders (Balogun et al., 2015; Dalpiaz & Di Stefano, 2018). For instance, in studies focused on strategic change, Dunford and Jones (2000) examined the enabling role of different narrative content, and Maitlis (2005) examined differences in stakeholders' involvement and animation as they co-constructed narratives. Nevertheless, most research on the narratives surrounding organizational transformation have tended to treat stakeholder groups in a unitary fashion despite wide-ranging divergence—even within stakeholder groups—about whether they view a narrative as coherent, plausible, and acceptable (Kaplan & Orlikowski, 2013). Divergent interests between and even among stakeholder groups may affect the perceived stakes associated with change (see Balogun et al., 2015; Sonenshein, 2010). Thus, in the context of repeated transformations, these differences might become accentuated, not only in terms of

which narratives elicit positive responses and are meaningful to stakeholders, but also the extent to which narratives convince stakeholders to sustain their resource commitments.

Although leaders of large organizations often attempt to avoid repeated organizational transformation, such transformation is particularly common in entrepreneurial settings. This is because entrepreneurial ventures lack established processes, have limited legitimacy, and encounter difficulties in developing new markets, thereby forcing them into multiple rounds of transformation to secure resources essential for survival or growth (Gruber & Tal, 2017; Kirtley & O'Mahony, 2023). Accordingly, in the next section, we turn to the entrepreneurship literature to review what we already know about organizational transformation in this extreme context.

Entrepreneurial Ventures and Repeated Pivoting

The lean startup framework (Blank, 2012; Osterwalder & Pigneur, 2010; Ries, 2011) has identified several empirical phenomena experienced by entrepreneurs that are relatively new to organizational theory. One such phenomenon is pivoting, defined as the process whereby a venture radically re-orient its existing strategy (e.g. Grimes, 2018; Hampel, Tracey, & Weber, 2019; Kirtley & O'Mahony, 2023; McDonald & Gao, 2019; Wood, Palich, & Browder, 2019), and therefore is germane to understanding organizational transformation. In research, pivoting is commonly assumed to be a beneficial learning-focused process aimed at resolving uncertainty. For instance, pivots are described as the byproduct of “intelligent adaptation” to customer feedback (McDonald & Gao, 2019: 1312) and the result of “learning milestones,” wherein information is “accumulated” and “validated” (Shepherd & Gruber, 2021: 980). Rather than incremental shifts, these tend to be radical adaptations which reorient foundational aspects of a venture (Hampel, Tracey, & Weber, 2020). Even still, the assumption is that if one pivot is the result of learning, more pivots suggest even greater learning (Ries, 2011).

As Chen, Elfenbein, Posen, and Wang (2024, emphasis added) recently attested: “There has been growing scholarly interest in understanding experimenting and pivoting as integral to a scientific approach to venturing” (p. 80). Within this work, strategies are conceptualized as hypotheses, business models as experiments, and repeated change as learning that brings an entrepreneurial venture closer to success. Although they used a computational model to theorize about how frequently entrepreneurs should pivot and noted the risks of over-pivoting, the authors concluded that entrepreneurial learning through pivoting improves performance, particularly when entrepreneurs are overconfident (Chen et al., 2024). Similarly, Eesley and Wu (2020), in their experimental study of entrepreneurs on a massive open online course platform, found that while repeated pivoting can reduce short-term performance, it ultimately increases long-term funding and revenue. Moreover, they found that mentors who facilitate the learning process during repeated pivoting help improve both short- and long-term performance.

Although the literature on entrepreneurship has largely focused on the learning-related benefits of the pivoting process, some studies have identified potential liabilities and limits of pivoting as it relates to sustained resource flows (Snihur & Clarysse, 2022). For instance, in their study of financial technology ventures, McDonald and Gao (2019: 1312) acknowledged that pivoting may encourage audiences to “lose interest and withdraw from a venture despite an appropriately fluid response to altered circumstances.” These authors provided an important initial examination of how pivoting narratives, which anticipate, justify, and stage strategic reorientations, might affect investors’ reactions, and consequently, the venture’s resources. (Hampel et al., 2020) similarly focused on pivoting in the context of the Impossible Project—the reinvention of a mature venture (the Polaroid camera)—which needed to radically change as the market evolved. They focused on the venture’s customer-related communications which sought

to engender empathy with these key external stakeholders while mythologizing the technology and product in hopes of “resetting” the extent to which customers were identified with the original Polaroid camera. In their review of the original lean startup framework, Shepherd and Gruber (2021: 982) identified such limits in terms of an entrepreneurial venture’s “runway.” Quoting Ries (2011: 160), they pointed to entrepreneurial runways as having important implications for “the number of pivots [a startup] can still make,” suggesting that an entrepreneurial venture moves toward a ceiling or threshold with each pivot. Such imagery of the entrepreneurial runway implies that even in the context of dynamic and nascent markets, an entrepreneurial venture can only make a finite number of pivots before its stock and flow of resources diminishes.

Toward a Culturally-Informed Process Model of Resource Commitments across Repeated Organizational Transformations

Taken together, research on organizational transformation and entrepreneurial pivoting reveals that to accrue the long-term benefits of change, leaders must construct narratives capable of engaging different stakeholder groups and sustaining their support and resource commitments. At the same time, these literatures highlight that the very narratives which might enable support for single episodes of organizational transformation may, in fact, prove least likely to sustain stakeholder support amid repeated transformation and pivoting. To disentangle this tension, we turn to longstanding research on stakeholder theory (Parmar, Freeman, Harrison, Wicks, Purnell, & De Colle, 2010), which has examined the motivations and expectations of both internal and external stakeholders in the context of organizational resource exchange.

An organization’s stakeholders comprise all actors who might affect or be affected by that organization (Freeman, 1984). As such, it has been widely assumed that stakeholders engage

in resource exchanges with an organization after evaluating the associated stakes (i.e., contributions, opportunity costs, and plausible returns). Following Rowley and Moldoveanu (2003), a stakeholder group is often defined by the extent to which individuals within that group either exert a common influence over organizations or are commonly affected by those organizations (see also Jones, 1995; Scott & Lane, 2000). Thus while the literature has frequently distinguished between stakeholder groups, scholars have typically assumed common stakes within groups (e.g., see for a review Kujala, Sachs, Leinonen, Heikkinen, & Laude, 2022). However, recent work notes that even if stakeholder groups might be subject to similar stakes, the *perceived* stakes might vary among individuals within these groups, ultimately shaping their orientations toward and thus engagement and interactions with organizations (Alvarez & Sachs, 2023; Bridoux & Stoelhorst, 2016; Kujala et al., 2022). For instance, drawing on Fiske (1991) relational theory, Bridoux and Stoelhorst (2016) distinguished between four different stakeholder orientations: *communal sharing*, *market pricing*, *authority ranking*, and *equality matching*. Whereas communal sharing is characterized by a “fusion of the self with the community” (Bridoux & Stoelhorst, 2016: 232) and a desire to contribute to the advancement of common goals, market pricing is characterized by a “focus on proportionality in the form of rational cost-benefit calculations” (Bridoux & Stoelhorst, 2016: 234). Authority ranking is characterized by the perceived legitimacy of relationships based on power asymmetries, whereas equality matching is characterized as an expectation of equivalent and balanced rights and obligations.

A stronger culturally-informed theory of sustained resource flows in the context of repeated pivoting should thus look to differentiate not only between stakeholder groups and their orientations but also how such orientations might shape how they react to repeated pivoting. For instance, we know that pivoting narratives can directly affect stakeholders’ expectations about

the future of the organization, as well as their support (McDonald & Gao, 2019). Scholars have also recently suggested that narratives which emphasize common ground (i.e., shared beliefs, knowledge, and values) are most likely to resonate with very early-stage stakeholders before stable business models are developed (Alvarez & Sachs, 2023). Yet we know little about how different pivoting narratives might interact with stakeholders' orientations to affect expectations and the sustained flow of resource commitments over time (Kujala et al., 2022). Moreover, it is unclear how the process of repeated pivoting might undermine the relationship between those narratives and expectations. In sum, our study seeks to shed light on how different and changing narratives affect the flow of different stakeholders' resource commitments as an organization undergoes multiple organizational transformations or pivots.

METHODS

Sensitizing Period

To build theory inductively on the relationship between narratives, pivots, and resource commitments, we collected a variety of real-time data from Respiro, a publicly-listed “micro-cap” entrepreneurial venture with a history of organizational transformation. The venture was founded in 2008, and over the subsequent four years, changed its name and completed four intellectual property portfolio acquisitions. The first author was introduced to Respiro when its independent board chair spoke at a university-sponsored entrepreneurship event in March 2012. In December 2012, the board fired the company founder, Alessandro, because the venture was not financially sustainable, and by early 2013, had appointed Adam as its new CEO.

Interested in how Respiro would justify past, present, and potential future shifts, the first author visited Respiro in February 2013, interviewing its new CEO, its board members, and its four full-time employees. This immersion within Respiro allowed for a rich understanding of the

venture. For instance, initial interviews revealed differences in how participants described Respiro's purpose and the stories they told about how the company had arrived at its current strategy. Excited by the potential to go beyond historical accounts to capturing a "living" account (Boje, 2001), the first author became embedded full time at Respiro's offices for 4 weeks in early 2013 as a non-participant observer. During this period, the researcher became further sensitized to how different narratives were being used by the new CEO to justify the pivoting process through dialogue in meetings, conversations, and stakeholder-facing communications such as newsletters and reports. The researcher also wondered how such justifications were being reinterpreted by employees and investors, and implications for their resource commitments to support Respiro's survival. Recognizing gaps in the existing literature, this initial sensitizing period helped focus the research inquiry and data collection on the different narratives employed by the CEO, as well as employees' and investors' expectations and reactions.

As the first author's rapport and familiarity with Respiro grew, he was invited to join the board in February 2014 as an independent director (see also, Tripsas, 2009). This created an opportunity to go beyond staff meetings and public announcements by providing deeper access to board discussions that framed critical strategic decisions. Cognizant of the challenge this insider access posed to maintaining critical distance, the first author invited two co-authors to join the research team, thereby facilitating an insider-outsider perspective throughout the data collection and analysis process (Bartunek & Louis, 1996; Evered & Louis, 1981).

Data Collection

To study how different narratives shape resource commitments from both employees and investors, we followed recent studies and collected data from diverse sources (Vaara, Sonenshein, & Boje, 2016), as shown in Table 1. This data corpus included not only

ethnographic data collected during internal meetings and interviews, but also investor-related data captured from public stock market announcements, investor presentations, annual general meetings, and investor discussion forums.

-- Insert Table 1 Here --

Ethnographic observations. We recorded and transcribed team meetings and strategy workshops, where all aspects of the venture were discussed, including customer feedback, product development, manufacturing plans, marketing and distribution approaches, etc. These observations enabled us to “zoom in” (Nicolini, 2009) on how pivoting narratives were being constructed and reproduced by different members (e.g., the CEO, specific employees). In addition, we created fieldnotes to document informal conversations with individual employees that allowed us to understand resource commitments beyond their formal responsibilities (such as volunteering, or enlisting support from family and friends as volunteers, customers, or investors).

To track financial resource commitments, we focused on capital raises—critical moments when the CEO decided that Respiro had insufficient cash on hand to survive (based on revenues and the rate of expenditures), instigating campaigns to secure fresh investor capital. We observed three capital raises during our study period, which coincided with the strategic pivots. Each required the CEO to justify to investors the state of the venture and the intended use of new funds. Ethnographic observations relevant to these critical moments included investor presentations and well as board meetings where investor relations and feedback from critical investors were discussed in depth. In addition, we attended several investor conferences and annual general meetings where the CEO and investors discussed Respiro’s strategy publicly. Fieldnotes from informal conversations provided information about investor reactions to

Respiro's strategy and general shareholder sentiments. Overall, we captured data from 150 meetings or events, including operational meetings (50 events), informal conversations (47 events), strategy workshops (19 events), board meetings (10 events), and investor events (24 events) (see Table 1, Column 1). Observations spanned from February 2013 to December 2015.

Interviews. We conducted serial interviews with Respiro's CEO, employees and board members associated with several of Respiro's largest shareholders. These interviews enabled us to delve deeper into employees' and investors' motivations for committing resources to Respiro, as well as their reactions to pivoting narratives over time (Patton, 2015). Specifically, we asked questions about the promises they had perceived, their own prior and changing expectations, their willingness to commit resources to the venture, and the reasons behind this willingness.

The first author and a research assistant conducted a total of 75 semi-structured interviews with Respiro's CEO, board members, employees (see Table 1, Column 2). These interviews typically lasted 1 to 2 hours and were transcribed. We interviewed the CEO nine times (every 3 to 4 months), the company's two board members six times each (every 5 to 6 months), and employees at similar 5- to 6-month intervals. We interviewed a total of 11 employees, including three who began working for the company before Adam's appointment as CEO (10 total interviews) and an additional eight who joined at different times after Adam's arrival (44 total interviews). These interviews encompassed the full-time employees within Respiro during our study period, but excluded contractors, consultants, and casual assistants.

Archival documents. Finally, as Respiro was publicly listed, a large amount of media coverage, share price data, and financial information was publicly available. We collected data from company announcements on the stock exchange, company website, and at annual general meetings. Respiro was mandated to disclose all information that was material to investors,

particularly during periods of capital raises. Responses to these announcements could be inferred from share price movements, but more specific responses also were collected from 44 independent threads published by current or prospective shareholders on the Trading Room [a pseudonym], a popular forum for discussing the local stock market. These threads typically responded to market announcements including capital raises and generated 624 comments over the study period, highlighting extensive activity on the forum. Finally, the research team was granted access to non-public board materials, investor pitches and presentations, strategic plans, internal reports, and other documents relevant to Respiro's capital and communications strategy across its various strategic pivots (see Table 1, Column 3). Ultimately, we collected 245 public and private documents which helped us develop a deeper understanding of the flows of financial resource commitments in and out of Respiro across pivots.

Data Analysis

As is common with qualitative research, the focus of our data analysis evolved concurrently with our data collection (Shepherd & Sutcliffe, 2011; Suddaby, 2006). Initially, we focused on the CEO's pivoting narratives and how these were reproduced by employees across pivots. However, after noticing the impact of these narratives on the flow of human resource commitments from employees, we were prompted to consider potential impacts on financial resource commitments from investors. Additionally, at several points in the project, we returned to some of our informants to member check our emergent interpretations and conclusions, with the goal of enhancing the trustworthiness of our insights and analysis (Lincoln & Guba, 1985).

Stage 1: Timeline of pivots and resource flows. In the first stage of analysis, we outlined a timeline of events (Table 2) focused on three aspects: pivots in Respiro's strategy (as evidenced through, for example, company announcements and strategic decisions); shifts in the

flow of human resources (as evidenced through, for example, extra-role time or restrictions placed on employee commitments); and shifts in the flow of financial resources (as evidenced through, for example, capital raises that injected new cash into the business for equity²). Plotting key financial resource commitments—especially around critical moments like capital raises—allowed us to observe how the timing of pivots announced by the CEO interrelated with resource constraints and the CEO’s decisions to pitch for capital raises to secure new financial resources for the venture. We plotted these relationships in two formats: one which mapped the timing of major human and financial resource commitments side-by-side (Table 2), and another which mapped capital raises longitudinally in the context of other relevant financial data such as Respiro’s cash on hand, fluctuating share price, and financial disclosures such as announcements around important deals and pivots (Figure 1).

-- Insert Table 2 and Figure 1 Here --

Stage 2: Identifying pivoting narratives. Next, we analyzed how the CEO motivated and justified Respiro’s pivots by compiling “pivoting narratives,” which we composed by piecing together multiple sources of data including the CEO’s comments in meetings, interviews, written announcements to the market, and verbal investor presentations. We observed that pivoting narratives were constituted through three narrative elements, which are reflected in illustrative coding from our analysis in Table 3.

-- Insert Table 3 Here --

The three common narrative elements we found across all pivoting narratives were

² Capital raises injected cash into the venture in exchange for equity. The amount of equity that investors received depended on Respiro’s valuation at the time of the capital raise, which was informed by investor demand for the venture’s shares. Where the valuation was the same or lower than the last capital raise, shareholders needed to invest fresh capital into the business in order to maintain the size of their stake in the business. Decisions around the terms of capital raises, such as price and who was allowed to participate, was a strategic decision made by the CEO and board.

explanations about the past (“the past” in Table 3), promises about the future (“the future” in Table 3), and claims about who was responsible for organizational transformation (“source of agency” in Table 3). Additionally, we observed that these narrative elements varied in ways that corresponded with two different pivoting narratives: a *revolutionary* narrative of change, and a *scientific revision* narrative of change. For the revolutionary narrative of change, the CEO stitched together a narrative that sought to “break from” the past, delineated future promises that had a “proximate” horizon with no further changes needed, and cast the source of agency as calling for “individual” effort. On the other hand, for the scientific revision narrative of change, the CEO stitched a different narrative that sought to “connected with” the past, delineated future promises that had a “distal” horizon in terms of when predicted outcomes would occur and the process of repeated change to get there, and cast the source of agency as a “collective” effort. Supportive evidence is illustrated in Table 3.

After this analysis was conducted, we noticed another interesting pattern. Although both narratives circulated simultaneously, over time the scientific revision narrative became more predominant. Furthermore, those stakeholders (whether employees or investors) who responded positively to the scientific revision narrative were more likely to remain committed to Respiro across repeated pivots, whereas those who responded positively to the revolutionary narrative were more likely to withdraw their support for Respiro across repeated pivots.

Stage 3: Identifying stakeholders’ orientations. In the third stage, we sought to understand what accounted for this pattern of variance. Here, we drew again on multiple sources of evidence, focusing on the communications of Respiro’s key internal and external stakeholders—namely, employees and investors. These data sources included interviews with employees and board members (each of which had deep investor connections), observations of

meeting discussions, informal conversations with investors, and online chat forums where shareholders traded reactions to Respiro's news and announcements. As we analyzed these data, we began coding for individuals' claims about membership in particular stakeholder groups. We identified four such membership claims: professionals, entrepreneurs, day traders, and mission-driven investors. Employees tended to claim membership in one of two types of stakeholder groups: professionals (i.e., role-based employees) or entrepreneurs (i.e., members of the local regional entrepreneurial ecosystem). Investors divided into two different sub-communities as well: day traders (i.e., those interested in short-term returns) or mission-driven investors (i.e., those investing to support Respiro's underlying social purpose).

Initially, we found that these stakeholder groups helped explain different reactions to Respiro's changes: for instance, how and why day traders and mission-driven investors might react differently to pivoting narratives. At the same time, we found that these distinctions did not account for the similarities we observed across different stakeholder groups (e.g., similar responses among day traders and professional employees). To make sense of these connections, we shifted our focus from stakeholder groups to what we conceptualized as their *orientations*. Drawing inspiration from prior research, we captured a stakeholder's orientation as their "mental representations of their relationships with the other participants in value creation" (Bridoux & Stoelhorst, 2016: 231). In other words, we captured how individuals related to any organization or set of market actors, and not just a particular entity such as Respiro.

Overall, two different orientations were evident in our data. Stakeholders with a *market pricing* orientation displayed an extractive basis for exchange (i.e., they valued interactions with organizations or investment opportunities to the extent that they might extract personal or professional benefits). Conversely, stakeholders with a *communal sharing* orientation displayed a

generative basis for exchange (i.e., they valued interactions with other organizations and investment opportunities to the extent that they might contribute to their success and that of the wider ecosystem or economy). Critically, we identified these orientations across both employees and investors, and found them to be useful in explaining why we observed similar responses among seemingly disconnected stakeholder groups (i.e., the market pricing nature of exchange exhibited by day traders and professionals vs. the communal sharing nature of exchange exhibited by mission-driven investors and entrepreneurs). Evidence supporting our coding efforts is provided in Table 3.

Stage 4: Effects on the flows of human and financial resource commitments. In the final stage of our analysis, we examined how the cultural resonance of Respiro's pivoting narratives affected stakeholders' resource commitments across pivots. Although stakeholders' orientations influenced the extent to which the different pivoting narratives resonated with them, cultural resonance is both theoretically and empirically distinct from these orientations. Specifically, we assessed cultural resonance based on how stakeholders reacted to the two different pivoting narratives circulating within Respiro as well as changes in their reactions over time. For instance, we captured how some employees and investors initially responded positively to the CEO's revolutionary pivoting narrative, yet responded negatively as that revolutionary narrative was increasingly overshadowed by the scientific revision narrative.

We then identified how cultural resonance affected resource commitments from employees and investors. For instance, evidence of human resource commitments included extra role behaviors such as working nights and weekends, or conversely, withdrawing support, such as by limiting their own involvement in specific tasks and extra-role responsibilities. Evidence of financial resource commitments included their decisions to participate in capital raises when the

company asked for additional resources to fund its strategy; investment choices to buy, hold, or sell stock in Respiro; public statements justifying the rationale for their choices on public online forums, in annual general meetings, and in discussions during investor presentations; and private statements shared with the CEO and Chair which were reflected back to board members at board meetings on the state of investor relations (see Table 3).

When we examined resource flows over time, we observed marked differences. Stakeholders with a communal sharing orientation sustained their human or financial resource commitments to Respiro across repeated pivots, whereas stakeholders with a market pricing orientation were prone to fluctuate across repeated pivots by leaving the venture (withdrawing human resources) or divesting (withdrawing financial resources). As part of our analysis, we constructed Table 4. It includes all employees and a purposive sample of investors (Creswell, 2007), together with details of their pivoting narratives, orientations, and resource commitments across repeated pivots. Color-coding those periods when the employee or investor reacted to the CEO's pivoting narratives positively (green), negatively (red), and ambivalently (orange) allowed us to link reactions to pivoting narratives (i.e., cultural resonance) more formally to resource flows over time.

-- Insert Table 4 Here --

FINDINGS

During our fieldwork, Respiro and its CEO proffered two different pivoting narratives to both employees and investors: one we dubbed *revolutionary* and the other we dubbed *scientific revision*. Although both pivoting narratives circulated simultaneously within Respiro, they resonated differently with employees and investors depending on their orientations (i.e., *market pricing* or *communal sharing*). The cultural resonance of these narratives influenced

stakeholders' resource commitments to Respiro across repeated pivots. The dynamics we observed in our analysis are depicted in Figure 2. In the sections that follow, we describe and present evidence for each of these illustrated relationships.

-- Insert Figure 2 Here --

Influence of the Revolutionary Narrative on Stakeholders with a Market Pricing

Orientation

Adam took over as CEO in February 2013 after the prior CEO was dismissed due to poor financial performance when several important deals fell apart. Perhaps not surprisingly, Adam proposed to abandon the old strategy and promised a new direction of radical transformation that would deliver materially different and better outcomes for the venture such that it would not need to keep changing to survive. This radical break with the past was an essential element of a *revolutionary pivoting narrative*. Although this revolutionary narrative resonated with employees and investors with market pricing orientations and increased the flow of short-term resource commitments into Respiro, we found these effects were short-lived.

Initial resonance leads to an increase in resource commitments. In strategy meetings, the CEO was comfortable telling employees, “We’ve got to kill everything.” This “revolution” entailed a fundamental change in both strategy and business model, as Respiro pivoted from its prior focus on acquiring and licensing intellectual property toward a core business of product development, manufacturing, distribution, and marketing which promised to secure the venture’s financial sustainability. Adam committed to manufacturing nasal stents (one of Respiro’s patents) that plugged into a user’s nasal passage to support oxygen flow during aerobic exercise; he planned to divest the remaining patents. Promising immediate and galvanizing outcomes, he announced a capital raise of \$500,000 which was completed in April 2013 to fund the proposed

direction of launching SportsPro. He outlined concrete production milestones to be achieved within 12 months, and framed his promise to employees as follows:

It literally took until about month two when we started to sort out [the former CEO's] financial mess. And then I said [to employees], "Okay, the clear vision is we need to get a product into the market this calendar year in order to demonstrate that we can actually do what we say we will and give that glimmer of hope, and get permission from investors at the annual general meeting to continue. (executive interview-02)

He framed his promise to investors similarly, highlighting immediate opportunities to make money and grow their investment. As he said at an investor presentation in April 2013: "Since the failure of the licensing deal with [Triple A], we have done a significant amount of restructuring to pivot the business ... and expect the share price to reflect that change over time" (investor presentation-14). In a shareholder announcement, he framed the revolution specifically in relation to the size of the sports market and the global financial benefits this new direction afforded Respiro's owners:

Having established a beachhead in Australia, the company will expand its reach through international affiliate sites and distribution channels in 2014. With over 4 million Australian cyclists, 40 million American cyclists and 141.9 million Americans participating in outdoor exercise Respiro is at the forefront of a significant global opportunity. (company newsletter-02)

The revolutionary narrative resonated with the subset of employees and investors, who held *market pricing* orientations toward organizations, meaning they focused on what they could personally gain from a resource exchange with those organizations (i.e., an extractive basis of exchange). For example, Amanda always introduced herself as a professional "sports marketer" in informal conversations. She projected this affiliation by wearing athletic clothing in the office and frequently reminded colleagues of her prior experience working as a marketer for prominent sports teams in the city. And as such, she tended to view labor opportunities based on potential benefits to her as a professional sports marketer. Indeed, she readily admitted to colleagues that

her motivations for joining Respiro were more generally related to her professional aspirations: “what I’m most passionate about is building a kick-ass sports brand” (employee interview-05).

On the investor side, day traders like Lucky8 made frequent comments about stocks on the Trading Room forum, reacting to opportunities to buy and sell companies. Lucky8’s *market pricing* orientation was evidenced by their extractive basis of exchange communicated on the forum. Lucky8 appeared to have no attachment to stocks beyond potential financial returns, calling those who held onto stocks for other reasons “suckers.” In one post, Lucky8 stated: “Looking for trading ideas to buy low and sell high. Send me a message directly and we can have a chat” (Trading Room thread-04).

Adam’s revolutionary pivoting narrative initially resonated with both employees and investors who exhibited market pricing orientations, as the associated narrative elements helped establish how pivoting would offer opportunities from which to extract personal and professional value. Julia, the CFO and a financial professional with a market pricing orientation (see Table 3), for example, responded positively to Adam’s revolutionary narrative justifying the radical pivot to sports, because it meant she could be part of the turnaround in which Respiro would “finally” become “something approximating a proper business” and start making decisions based on numbers and market projections (employee interview-16).

Similar to professional employees, day traders reacted positively to Adam’s revolutionary narratives in stock announcements which they interpreted as opportunities to profit from short-term share price movements. In July 2013, for example, Lucky8 wrote “Nice story from CEO” on Trading Room in reference to an announcement about the official launch of SportsPro in December 2013. Lucky8 clinically described the opportunity for personal financial gains highlighted by the revolutionary narrative:

I'm getting well set to climb through to 8c [for a Respiro share] on Product Launch. And once it shows resistance above 8c, it won't take much to pass it through to 10c. History of many stocks from my experience has proved this in the past and now [Respiro] is ready for it. (Trading Room thread-06)

TraderJohn posted an equally positive and clinical reaction to Adam's revolutionary narrative and the opportunity for personal gains:

There is strong accumulation occurring on both the stock and the options [after the CEO's announcement]. This accumulation would not be occurring to the degree that it is if there were too many speed humps on the horizon and they didn't see further growth here. Once the accumulation is done, watch the prices of BOTH take off after that! I reckon it will be a lot bigger than the last rise we saw... Yes I am buying – again! (Trading Room thread-08)

In resource flow terms, the promises espoused by the CEO's revolutionary pivoting narrative resonated positively for stakeholders with a market pricing orientation, leading them to increase their short-term resource commitments to Respiro. These stakeholders were excited by the potential rewards envisioned by this narrative and “bought into” the radical trajectory of change by committing both human and financial resources. For example, Respiro's revolutionary narrative obviously resonated with Julia, the CFO, as she not only worked extra hours, but also became a shareholder (employee interview-16). June, a member of the marketing team began investing time in the company beyond what was required and expected; she recruited friends and family to attend cycling races as unpaid volunteers who handed out product samples and helped evangelize for the brand (employee interview-13). The revolutionary pivoting narrative also resonated with Amanda; beyond her efforts at work, she became a customer and an evangelist, using SportsPro in her own aerobic activities and even asking her gym instructor to distribute it to her exercise class (informal conversation-31; operational meeting-16). Likewise, day traders responded to the swift flow of announcements by buying more shares of Respiro, pushing the price upwards and increasing its market value. As day trader MoneyBall noted:

If Twitter is something to go by [with the latest news] then it should have been a fantastic start with a lot of positive comments. Many of its bio-tech peers got shot up sky high just on expectations, [Respiro] still on the bottom with having an excellent product in the worldwide market. Therefore it should follow soon with some more CEO announcements. I'm buying more stock now. (Trading Room thread-11)

Lack of resonance across repeated pivots leads to withdrawing resources. In December 2013, Respiro launched SportsPro, successfully delivering on one of the CEO's key milestones. By March 2014, however, sales for the first quarter were just \$200,000, far below expectations. This meant that Respiro was operating at a significant net loss after taking into account operating costs, a situation the revolutionary pivoting narrative had promised to end (board report-03). Adam responded, not by doubling down on the SportsPro strategy targeted at helping athletes, but by announcing a new pivot to employees and the market: Respiro would repurpose its nasal stent technology to help people with sleep apnea breathe better at night.

For employees with a market pricing orientation, this repeated pivoting negatively impacted the resonance of the revolutionary narrative. Specifically, employees and investors who had expected the CEO to lead Respiro's revolution away from ongoing financial troubles and change now grumbled about an emerging perception of "failure," which they interpreted as evidence that the revolution had been misguided and the CEO had failed to deliver on promised outcomes. Julia, the CFO, for example, started to sour in informal interactions with staff and the board, complaining to anyone who would listen that Adam was not staying the course and that she would not support investments in new product development. For her, the repeated pivoting and perception of continued failure undermined her earlier expectations of being able to extract professional value from playing a primary role in laying a strong financial foundation for Respiro's turnaround. Relative to sports, sleep was a very different customer segment and market, with unique supply chains, pathways for diagnosis, and product price points, requiring

significant expenditure to rebuild. In response to the narrative used to justify the venture's pivot, Julia said, "It's not a practical or implementable solution, and we cannot escape this product by simply avoiding it and doing other things" (operational meeting-42). Adam was aware of Julia's misgivings and began complaining about her "negativity" (executive interview-06).

June, a marketing manager, also interpreted Adam's new pivoting narrative as clashing with her professional interest in establishing herself as a sports marketing expert and what she wanted to gain by working for Respiro. During an interview about Respiro's transition into the sleep market, she explained: "What I'm hesitant to do is try new things, particularly something which is a pretty foreign concept in areas like sleep, until we have really got things socialized in sport" (employee interview-26). She felt that sleep "was a different kind of market" in terms of customer segmentation and the drivers of marketing awareness, and the narrative conflicted with her expectations that Respiro would focus on elite athletes as marketing influencers (employee interview-26). Amanda, also a member of the marketing team, likewise worried that repeated pivoting not only undermined the promises associated with the revolutionary narrative (wherein a clear vision was meant to put an end to repeated change), but also reflected poorly on Respiro and its marketing approach:

One of the things I worry about is whether we are just back to where we started. ... When we were [licensing to partners] we were spinning our wheels for a long time trying to grasp what we wanted to focus on ... One of my concerns here is that we went through a rigorous process to identify the sports focus and if we move away from that too quickly, we dent confidence. (employee interview-28)

A similar pattern could be observed among day traders with a market pricing orientation. Once it became clear that the SportsPro launch of Q1 2014 would not generate enough revenue to fund ongoing operations, Adam began to explore the need for a new capital raise to cash fund the pivot to launch the sleep product. A capital raise was potentially bad for existing shareholders

who did not participate by injecting in fresh funds because it would dilute their shareholding of Respiro. Depending on what financial terms the capital raise was done at, this could reduce the value of their stake in Respiro. Adam began actively giving investor presentations through Q1 and Q2 2014. By October 2014, he had raised \$2 million in new financial resources earmarked for delivering and scaling up distribution of a sleep product. However, day traders who had bought into the initial promise of revolutionary change and immediate short-term returns reacted negatively to the new pivoting narrative, describing it as “PR hype” and a distraction from the CEO’s core promise to make the company profitable.

As the revolutionary narrative faded into the background and repeated change became more likely, Lucky8 argued: “Forget all the PR hype; it’s sales and profits that are missing. Continued poor financial performance will mean another capital raising. I’ve seen it all before” (Trading Room thread-13). When the capital raise was announced, another trader reacted cynically and refused to inject new capital into the business, noting the failed promise of Adam’s revolution which was meant to put an end to the history of repeated pivots and dilutive capital raises. Addressing fellow traders in the chat forum, NG8 made the following observation:

[The CEO] won’t care for the mum and dad investors out there who will get burnt in the short term [as capital raises dilute share value]. They don’t know you. They can’t see you so why would they care when they can receive instant gratification. (Trading Room thread-14)

Thus, a lack of resonance with the revolutionary narrative emerged for stakeholders with a market pricing orientation amid repeated pivots, and they responded by curtailing their investments which negatively impacted Respiro’s entrepreneurial runway. For example, June’s extra role commitments to Respiro waned after the pivot away from SportsPro. Like Amanda, she stopped voluntarily marketing the product at events because she perceived the repeated changes as reflecting a failed “revolution.” She noted, “I have raised my concerns with [the

CEO] but I guess ... he has had to worry about other things” (employee interview-26). By 2015, she had decided to leave Respiro. Given her market pricing orientation, Julia the CFO also scaled back her human resource commitment to Respiro as the revolutionary narratives used to justify repeated pivots failed to resonate with her.

By 2015, when the company pivoted a third time to medical cannabis, Julia had become disillusioned with Respiro’s ability to meet the goals outlined in the revolutionary narrative: “I think that the performance of [the strategy] is quite concerning and very disappointing” (employee interview-25). Although Julia was a personal investor, after the second and third pivots, she stopped promoting Respiro to her family and friends—as either a consumer product or an investment opportunity (informal conversation-47). She also spoke negatively about the company at an investor event, further diminishing resource flows into Respiro (investor event-22). During her last interview, Julia said: “When I see how much we are focused on just producing more and more products without getting the underlying mechanics right in sales and distribution, I despair” (employee interview-55). Brett also reduced his resource commitment and stopped posting about Respiro on social media in response to subsequent pivoting narratives. Julia and Brett both left the company within a year of the pivot to medical cannabis.

Transaction-oriented day traders similarly withheld financial resources by refusing to invest capital into the business. This had a negative impact on Respiro’s runway in terms of reducing the depth of financial resources accessible to the venture, which impacted the size of Respiro’s capital raises and the valuation of the business (a factor informing the degree of dilution to existing shareholders). MoneyBall argued how the company’s approach to repeated pivots raised questions about their ability to extract personal financial gains and thus was shifting their investment commitment away from Respiro: “Let’s face it everyone is here to make money

... [There are] plenty of other [day trading] opportunities to take advantage of” (comment on Trading Room thread-14). Lucky8 similarly noted how repeated pivoting not only exposed the broken promises of the revolutionary narrative, but was motivating him to move on from Respiro financially:

Show me the money, the market wants contracts not promises. Not memorandums of understanding, not high levels of interest that amount to nothing, not discussions that amount to nothing, not actively collaborating with companies that leads to nothing. I’m not investing more capital. (Trading Room thread-15)

Another day trader expressed frustration when the CEO announced a third new capital raise of \$2 million in October 2015 to fund the push toward medical cannabis. Following the CEO’s announcement, ConcernedShareholder refused to invest (and also reportedly sold their existing shares). They wrote: “Good luck to those who were sucked in by brokers and the company PR team and of course uprampers. Hope you recover your funds. I am out” (comment on Trading Room thread-15).

Overall, these findings show how the revolutionary pivoting narrative that resonated so strongly for stakeholders with a market pricing orientation and drove short-term resource increases ultimately led to resource withdrawals with impacts on the venture’s entrepreneurial runway. This is because repeated pivots undermined the promises of previous narratives and the motivations for resource exchange that they activated. The once strong increase in resources to support the revolution gave way to a sharp withdrawal as the narrative changed, undercutting the revolution they had anticipated.

Influence of the Scientific Revision Narrative on Stakeholders with a Communal Sharing Orientation

Interestingly, the revolutionary narrative was not the only narrative circulating within Respiro. Respiro and its CEO proffered an alternative pivoting narrative throughout the study

that framed Respiro's repeated pivots (from technology licensing to technology manufacturing, to sleep, to medical cannabis) not as radical changes, but as part of an evolutionary process of scientific revision that involved testing business model hypotheses to identify an appropriate market. This narrative, which became the dominant pivoting narrative as time passed, resonated with employees and investors who had a communal sharing orientation, as reflected in Figure 2.

Initial resonance leads to an increase in resource commitments. Instead of promising a revolution, the scientific revision narrative invoked a longer time horizon, reaching further into the past and looking further ahead. Ongoing changes at the company were anticipated and narrated as part of a “process of hypothesis testing” undertaken in response to emergent business opportunities (executive interview-02). For example, Adam used certain occasions to emphasize Respiro's history of solving “the problem of breathing,” a focus well beyond that of the sports market or any specific product the company had launched or might launch (company newsletter-06). This broader vision was positioned as “the North Star” during occasional offsite strategy retreats to brainstorm solutions beyond the venture's existing technological assets (strategy workshop-18). The CEO noted:

What we intensely know is that the issue patients face, clinicians face, insurers face, is better healthcare. And so, changing the way people breathe is not reliant on the founder's technology but rather what we collectively agree is the best technology to help patients. (strategy workshop-18)

The stakeholders who appeared to respond most positively to this alternative pivoting narrative were the subset of employees and investors who maintained communal sharing orientations. One employee, Liz, had multiple affiliations outside Respiro and saw herself as a member of the “Australian startup ecosystem,” actively serving as a mentor and speaker at startup events within the city's entrepreneurship community. Participating in the local ecosystem shaped her communal sharing orientation by providing opportunities to engage with other

employees and organizations. For example, she said she appreciated working at Respiro because the CEO made her feel like part of a “club” (employee interview-07). She expressed her desire to generate ongoing value for Respiro and saw that as reciprocal: “I feel very loyal to the company and very thankful for what it has given me” (employee interview-07). Another employee who shared this orientation was Nadine, who was interested in “taking up [entrepreneurial] opportunities” rather than being wedded to a particular profession (employee interview-09).

Nadine connected with Respiro because the “story... [of a] journey” resonated with her:

I joined because of [Adam] and also because it was a really interesting story, and it was exciting to go on that journey ... I’ve known [Adam] for a long, long time. ... He always talked to me about Respiro, and so I became increasingly interested and have been willing to do what the company needs to be successful. (employee interview-09)

In contrast with day traders, George viewed himself as a member of a mission-driven investor community. This membership shaped his communal sharing orientation, as he attended broker conferences and met with local board chairmen and CEOs. This communal sharing orientation meant that, like other mission-driven investors, his investment in Respiro and other companies was motivated by a broader macro-economic thesis, as well as his personal preferences and experiences with their technologies from a health perspective (he was an amateur road cyclist and user of SportsPro). George described his investment “philosophy” as “investing in the broad thematic of personalized medicine” (informal conversation at investor event-18). Another mission-driven investor commented: “we are more ‘invest in the team and the idea’ than we are in the actual financial results ... We have found returns follow backing the people” (informal conversation at investor event-16).

This communal sharing orientation and its focus on generating reciprocal value compelled these stakeholders to embrace the narrative of scientific revision that accompanied repeated pivots. For them, repeated pivots were evidence that the company was living up to its

broadly stated promises and purpose. Liz explained that Adam's pivoting narrative kept shifting toward the highest purpose of the venture and allowed her to see how she could continue to contribute value to that broad purpose as an employee: "I like the focus on breathing because it feels like we are building on what we have done before. It's just that as we get more experienced, we get better at it" (employee interview-23). Patrick, a product manager who had joined during the second pivot (to SleepPro), reacted positively to Adam's emphasis on the collective effort and the entrepreneurial journey required in the process of scientific revision: "It's exciting to be part of something that is much bigger than yourself" (employee interview-27).

For Liz and other employees like her, the repeated pivots also confirmed the promises of the scientific revision narrative to engage in continuous learning by testing and revising the business model to search for the right market. After the pivot away from SportsPro, Liz said:

In my head, SportsPro hasn't been a failure. We used SportsPro as a test case. We had a product. We developed it to a certain point—put it out there. It still wasn't right. We had to go back and redevelop it, and at the same time took all that learning to develop SleepPro. So, it was still a product that was in development, and we were able to use it with people that are passionate about breathing, people who are looking for that edge. And that gave us some results to then put that into SleepPro and say, "From a comfort point of view and an effective point of view, what changes do we need to make from sport that are going to work in sleep?" (employee interview-30)

Similarly, Nadine reacted increasingly positively to the scientific revision narrative over time.

Each iteration seemed to confirm the promises of the scientific revision narrative and her capacity to add value to the venture:

I always knew that to get a product into the market and to deliver on the promise wasn't going to be as good as we wanted it to be ... but we wanted to start a conversation with the customer. And if that means we need to change what we do, so be it. ... This is about the longer-term education process where you say, "What are the problems you face [as a customer]?" (employee interview-29).

Kate, the office manager, also considered the frequent pivots to be consistent with the scientific revision narrative. Even though the company jettisoned its sports brand which had been so

central to Adam's initial 12-month focus, Kate argued: "I think we have become very good at turning negatives into positives" (employee interview-31).

The scientific revision narrative also increasingly resonated with mission-driven investors because it highlighted the versatility of Respiro's technology and the ability for those investors to continue to support the venture's market exploration activities. One mission-driven investor rationalized his financial commitment even when the share price was under pressure by repeating Adam's mantra about having faith in the versatility of the underlying technology, which could be used as a "platform" rather than a "product" (executive interview-02): "the thing people forget is that this is not a single shot on goal ... it's a technology platform" (informal conversation at investor event-11). When asked about the declining share price in early 2014 after the launch of SportsPro, another mission-driven investor pushed back on the negative reactions from the day traders: "one of the key things we have going for us is that [Respiro's patent technology] actually bloody works" (informal conversation at investor event-12)!

The CEO actively cultivated these kinds of reactions by facilitating embodied use and experience of the technology, for example, by distributing and demonstrating it at investor conferences. This was part of what he called the "Remington model" getting investors to "buy-in" to the versatility of the technology as consumers. He later recounted:

But part of the [investor] story was if we can get it right [in our fundraising campaign then] the cyclists are the investors and snorers are the investors. So, it's the Remington model: "I liked it [the technology] so much I bought the company [as a shareholder]." (executive interview-03)

Investors with communal sharing orientations also expressed excitement about the latest results and technological performance, overlooking Respiro's financial performance. One investor noted at the annual general meeting at the end of 2014: "The [medical] trial results of [the product] are sensational! A clean sweep of regulatory approvals and commercial release of

[the product] online” (Trading Room thread-22)! Despite Respiro’s lackluster financial results, they reasoned that their investment and financial commitment was “a slower burn because it’s not a novelty ... We believe in the [underlying technology] and it’s just a matter for the market to catch on” (Trading Room thread-21).

Resonance across repeated pivots leads to sustaining resources. Across repeated pivoting, the scientific revision narratives increasingly resonated with stakeholders with a communal sharing orientation, leading them to sustain their resource commitments (even as stakeholders with a market pricing orientation withdrew resources). This did not mean that stakeholders with a communal sharing orientation provided additional resources without limitations or conditions; rather, they persisted with or increased their resource commitments despite significant pressure and scrutiny. In this respect, their resource commitments contributed to the venture’s entrepreneurial runway even amid change.

For instance, Nadine remained committed to Respiro through all three pivots, even though her job responsibilities changed each time and she never received a promotion. Embracing the scientific revision narrative and hewing to a communal sharing orientation, she was more than comfortable with the emergent tensions, the repeated changes facing the company, and her need to keep reinventing her role. She remained open to helping add value to the organization as it evolved: “I think we have become better over time in managing tensions and challenges. ... I’m quite open minded about where the company is heading” (employee interview-19). Two years later when the sleep strategy came under fire, her commitment to the organization remained unfazed. Although she had started in administrative roles in Respiro, her role had radically changed, from helping athletes, to managing the SleepPro product, to overseeing the marketing and sales results within Respiro’s pharmacy distribution channels, to

engaging with the regulators around medical cannabis sales. Asked (again) what she thought about the venture's need to pivot (again), she referenced the potential for expansive value creation: "I like the fact that we help people sleep, and the fact that we help with medicinal cannabis or what have you ... I think it's good that we have a mission that is rich enough to keep expanding" (employee interview-36). Her expectations associated with the scientific revision pivoting narrative were surprisingly strengthened by the pivots themselves. For Nadine, the pivots were not radical, but aligned with her expectations: ongoing revisions.

Liz, who also endured multiple role changes, similarly sustained her human resource commitments because the company's narrative that framed pivots as "experiments" resonated with her desire to contribute to Respiro's broad purpose. Despite the commercial failures of SportsPro, she perceived the scientific revision narrative as an indication of constant evolution: "[I like that Adam has forced us] to go up a few levels [from the technologies] and focus on the problem we wanted to solve. That is, that the company is about breathing" (employee interview-30). Reflecting on how she might continue to add value despite the potential role changes involved, she said: "I am prepared for the fact that this might change. The fact that we are moving into new markets for me is exciting, because it is part of a clear process of customer testing" (employee interview-38). She had conveyed similar sentiments previously: "I'm here to support Respiro's mission wherever it goes" (employee interview-23).

Mission-driven investors with a communal sharing orientation faced similar choices as pivots necessitated additional rounds of fundraising needed to support the venture's runway. Investors were asked to fund the strategy re-orientations by injecting capital into the venture via capital raises because Respiro could not afford to fund them from the cash flow of customer revenues. The board's Chair (also a major shareholder) co-led many of the conversations with

the largest shareholders, illustrating the communal sharing aspect of the company's major investors. During these meetings, often over lunch, the CEO and Chair shared additional details and stories to devote more time and attention to these investors. The Chair recounted one such meeting to the board when Respiro was seeking to raise \$2 million in extra capital to fund product development related to its sleep pivot in October 2014:

I also had lunch yesterday with [a major shareholder] and [another major shareholder]. For us it's about focusing on building the sales and doing other things. But on one hand obviously there is this disconnect [between the increasing growth in sales and product-market fit and the decreasing share price]. But I think the issue with the disconnect is simply the stock price is going nowhere, and so once you tell them the story, two things have come up. One is the sales story: you can tell them where we're at and what's happening, and that all sounds good. The second question is, "Well, what are you doing ... in terms of buying/selling the stock?" And I say, "Well, I'm not selling and I'm not going nowhere." They say, "Okay, that's good." So that's the reality of what we are dealing with (Chair at board meeting-06 on investor relations).

This quote reveals how the scientific revision narrative resonated with mission-driven investors in the sense that they were clearly aware of the public valuation challenges facing Respiro but were willing to look through "the noise" (board meeting-06) and inject more capital into the business (to maintain or even increase their equity in the venture) so long as relationships with the CEO and Chair remained intact and the process of scientific revision remained salient.

During the annual general meeting, in response to the company raising capital for its cannabis activities, another mission-driven investor described his confidence in the scientific revision pivoting narrative and his sustained resource commitment:

We've got all the right conversations now: we've got a product, the science is real, the product is starting to gain traction albeit slow, but it requires capital to drive it, to increase volume of sell-through, in order to get up to a breaking point. We've got to a new [product market] coming up that we don't know the size and scope of it yet, but we know it could be something big. So, I'm comfortable with where the story is up to and I've invested with [some of the board members] before. (investor event-24)

From a resource flow perspective, as the scientific revision narrative continued to resonate with shareholders who had a communal sharing orientation, these stakeholders' resource commitments to Respiro were sustained. During repeated pivoting, their unwavering commitments enabled Respiro to sustain its operations and therefore extend the venture's entrepreneurial runway at a time when stakeholders with a market pricing orientation withdrew resources from the venture.

DISCUSSION

In this study, we set out to explain an important challenge related to organizational transformation: How do different and changing narratives affect employees' and investors' resource commitments as a venture repeatedly pivots? While market selection processes might be expected to cut off resources to an organization that is continually switching from one failed strategy to another, this was not observed in the case of Respiro. Our findings reveal that different pivoting narratives can help to reframe these shifts and failures in different ways. Importantly, stakeholders with different orientations may respond differently to the same narrative, and adjust their resource commitments accordingly. Building on prior research which has established the importance of narratives in ensuring resource commitments and stakeholder engagement (Hampel et al., 2019; Lounsbury & Glynn, 2001; McDonald & Gao, 2019), our study reveals the varied effects of different pivoting narratives on the resource commitments of early-stage employees and investors. Our findings demonstrate that although resource flows may be particularly susceptible to repeated pivoting, these liabilities can be overcome through scientific revision pivoting narratives and communal sharing orientations which frame pivoting as a source of evolutionary learning rather than an indication of strategic failure.

A key feature of organizational transformation is the need to engage in continuous storytelling (Garud, Schildt, & Lant, 2014; Lounsbury & Glynn, 2001, 2019). Given our focus on the extreme case of entrepreneurial ventures, we are interested specifically in the stories entrepreneurs tell about their repeated transformations or pivots. In our model, we label these as pivoting narratives. As our analysis shows, at the heart of pivoting narratives are promises about the venture's strategy, including depictions of how that strategy connects or disconnects with its past, and who is ultimately responsible for ensuring the success of that strategy. In the case of Respiro, this manifested as contrasting revolutionary and scientific revision narratives. We also observed how different audiences responded to those narratives. Whereas prior entrepreneurship research has established the importance of investors and customers as audiences for such narratives, we contribute by also considering employees. In particular, we have focused on understanding whether and why different types of employees and investors remain committed to providing their resources to a new venture across a series of pivots.

We found that these two stakeholder groups varied systematically in their relationships with organizations and the wider environment as a function of their orientations (i.e., market pricing or communal sharing). Notably, these orientations affected how they responded to divergent pivoting narratives from Respiro. Pivoting narratives that were consistent with extant promises and orientation-related motivations for resource exchange were resonant, leading stakeholders to extend their resource commitments to the venture. Conversely, pivoting narratives that conflicted with those orientations failed to resonate, leading stakeholders to decrease and even withdraw their resource commitments. These findings contribute to our understanding of organizational transformation and entrepreneurship in three important ways.

A Culturally-Informed Theory of Resource Commitments during Repeated Organizational Transformation

Although research on organizational transformation is longstanding and pervasive, scholars have overwhelmingly focused on single instances of change. This literature typically conceptualizes organizational change as a discontinuous process aided by breaking with the past and rebuilding stakeholders' commitments to help them "buy into" a new organizational identity or strategy (Petriglieri, 2015; Pratt, 2000). Although this work has offered critical insight into the challenges and solutions associated with organizational transformation, a predominant focus on discrete change episodes overlooks the distinctive challenges and possible solutions arising from repeated pivots, and more precisely, their interdependence (Mantere et al., 2012).

Our findings and emergent model confirm the importance of examining repeated and frequent organizational pivots, highlighting critical challenges not addressed in prior research. Notably, repeated pivots place unique stresses on the narratives used to justify organizational transformation. Because scholars have largely presumed the discontinuity of organizational change, their proposed change management solutions appear ill-equipped to deal with the large number of cases that deviate from these unrealistic boundary conditions. Rather than developing and embedding a new organizational identity (Clark, Gioia, Ketchen, & Thomas, 2010)—a practice which is likely to break down amid repeated pivots due to limitations on time, financial resources, and stakeholders' willingness to accept the repeated failings of an organization and its leader—our findings illustrate the value of narratives which extend beyond single instances of change to normalize repeated transformations.

Our findings also contribute to more domain-specific theoretical conversations aimed at better understanding change or "pivoting" in the context of entrepreneurial ventures (Grimes,

2018). This work is important, as it draws attention to the search and learning processes associated with entrepreneurial ventures' efforts to radically alter their business models and strategies (Kirtley & O'Mahony, 2023). Prior research also highlights why pivoting might be challenging, as founders and leaders are called to account for and justify such changes to sustain support from investors (McDonald & Gao, 2019) and consumers (Hampel et al., 2019). With parallels to longstanding research on change management, this literature has focused on the narrative practices that allow ventures to reset stakeholders' identification and overcome the ambiguities and uncertainties introduced when a business model is radically reoriented.

Yet the existing literature on pivoting provides no clear understanding of how entrepreneurial leaders might justify the need to repeatedly pivot away from their own earlier strategies without indicting themselves in the process. Our study addresses this gap, highlighting how the narratives used to justify a single pivot have spillover effects in that they can residually constrain or enable subsequent pivots and threaten or bolster stakeholder support. As we have shown, narratives of revolutionary change can help dislodge stakeholder commitments to the past and encourage initial resource flows. Although revolutionary narratives can be effective in positioning a leader as a change agent, they also render the leader culpable if the revolution fails.

Despite this potential for leadership breakdowns during change, our evidence also reveals a cultural "toolkit" (e.g., Swidler, 1986) that savvy leaders can deploy to repeatedly pivot without simultaneously undermining stakeholder engagement. Specifically, framing change as "scientific revision" increases the likelihood of entrepreneurial leaders maintaining high levels of stakeholder engagement. Repositioning strategic goals as "hypotheses," strategic action as "tests," strategic failure as "learning," and strategic change as "pivoting" increases leaders' abilities to continuously adapt over time. In other words, pivoting failures become less of a

political liability for entrepreneurial leaders, and instead, are a potential source of credibility and even pride, as illustrated in the oft-cited quote from Thomas Edison: “I have not failed 10,000 times. I have successfully found 10,000 ways that will not work.”

Our insights regarding the power of scientific revision narratives move beyond prior studies in management and entrepreneurship which have highlighted the importance of learning from failure (Arino & De La Torre, 1998; Kim & Miner 2007; McGrath, 1999; Shepherd, 2003). Instead, failure is removed from the conversation, replaced by discussions of learning and pivoting toward (eventual) success. This research also extends Sonenshein’s (2010: 499) concept of “progressive” narratives, wherein “managers tell a story about how an organization will improve by adopting a new direction.” Our study, for instance, shows that although both revolutionary and scientific revision narratives operate as progressive narratives, differences in terms of how progress is envisioned (whether as revolution or scientific revision) can significantly affect employees’ and investors’ resource commitments over time.

Future research might extend this work by investigating how different cultural contexts influence the effectiveness of such narratives (Garud, Gehman, & Giuliani, 2014). Additionally, although we have highlighted the benefits of scientific revision narratives in helping to sustain resource commitments, presumably there are limits to their effectiveness. Examining such limits over extended periods could offer an important basis for future theorization of the resilience of such narratives. Moreover, extending the conversation to include a broader range of industries and organizational sizes may reveal whether the leadership narratives and stakeholder orientation-related effects we identified are universally applicable or if they vary significantly between large corporations and smaller entrepreneurial ventures. Such studies could help refine

change management practices across different economic landscapes, enhancing the adaptability and success rates of pivoting organizations.

Theoretical Elaboration of the Concept of Entrepreneurial Runways

Practitioners and academics frequently make analogical references to “entrepreneurial runways” to account for dynamics in ventures’ financial resources (e.g., Wood, Palich, & Browder, 2019). Such references imply that a venture’s cash on hand demarcates the length of its runway; its “burn rate” (i.e., monthly financial net outflows) determines how quickly it is approaching the end of the runway, suggesting that an entrepreneurial venture must achieve take-off. A venture must secure cash to fund its operations either through customer revenue or by raising capital from investors willing to provide cash (in exchange for equity) on the promise of future financial sustainability. More recently, entrepreneurship scholars have adopted the analogy of the entrepreneurial runway to refer not only to a venture’s cash on hand and burn rate, but also its limited ability to maneuver or pivot its business model (Shepherd & Gruber, 2021; Wood et al., 2019). Since pivoting may require an extensive outlay of financial resources to reset the business model, a venture’s often scarce financial resources may limit the possibility of doing so.

A implication from our study is that such financial conceptualizations of runways may be constraining our understanding of various forms of capital (including employee-based human capital) which affect the process of pivoting (see Gruber, Dencker, & Nikiforou, 2023; Murray & Fisher, 2023). Although one might assume that pivoting would deplete all available forms of capital, our findings and emergent model suggest otherwise. While it is certainly the case that pivoting requires resource reallocation, and frequently, increased expenditures, our findings show that in some circumstances, pivoting can increase stakeholders’ financial and human

resource commitments. Indeed, our case study illustrates that both pivoting narratives allowed Respiro to strengthen rather than weaken employees' and investors' commitments in the short-term, and that the scientific revision narrative sustained those commitments across repeated pivots among stakeholders with a communal sharing orientation.

In surfacing these findings, we propose a theoretically new way to think about the concept of entrepreneurial runways. For example, we propose that scholars may reconceptualize a “runway” as resources contributed by both employees and investors. Thus we propose expanding scholarly attention beyond the acquisition of financial resources or external stakeholder support (Hampel et al., 2019; Kirtley & O'Mahony, 2023) to the contingencies that can affect multiple vectors of resource commitments within new ventures. Because scholars acknowledge that entrepreneurs are prone to pivoting (Chen et al., 2024; Eesley & Wu, 2020), it is often assumed that entrepreneurial teams represent a stable and committed resource. It also assumed that because financial capital is highly fungible, as long as financial resources are sustained, such resources can be easily exchanged for other resources including the recruitment and retention of human resources (Davidsson & Gruenhagen, 2021; Wood et al., 2019). Yet, employees' resource commitments cannot be taken for granted, given divergent motivations for resource exchange and the constant flux of startup business models. It is therefore critical for research on entrepreneurial ventures to account for both cross-sectional and longitudinal variation in early-stage employees' commitments of time, energy, and talent (Berends, van Burg, & Garud, 2021; Snihur & Clarysse, 2022). In this way, our culturally-informed elaboration of entrepreneurial runways offers a more expansive understanding of the dynamic nature of various forms of early-stage capital within ventures.

In addition, our theory directs scholarly attention to the important role of pivoting narratives in dynamically constructing and reconstructing entrepreneurial runways. Our findings highlight how some promises such as those associated with revolutionary pivoting narratives can initially increase resource commitments from stakeholders with a market pricing orientation, thereby significantly extending a venture's runway. However, because those narratives promise highly specific and inflexible short-term goals, and because the market pricing orientation shapes motivations for stakeholders to extract value from revolutionary changes, repeated pivoting can undermine both those narratives and motivations, such that stakeholders withdraw (and withhold) resources from the venture. Conversely, because scientific revision pivoting narratives and the communal sharing orientation are symbolically tied to more flexible and abstract goals and collective organizational motivations, repeated pivoting is perceived as anchored to a stable long-term vision even as the promises and motivations are reinforced. Taken together, this broader and more dynamic theorization of runways changes how we think about entrepreneurial resources not merely as performance outcomes of the pitching process, but as components of a culturally-situated process in which narratives and stakeholder orientations are constantly interacting to inform commitments. This theorization also informs a new scholarly understanding of how such narratives relate to the development of entrepreneurial ventures. While prior studies have focused on narratives as part of the early-stage pitching process (Fisher, et al. 2021), our study highlights how the importance of such narratives extends well beyond these early communications.

Noting prior calls for research on the relationship between pivoting and entrepreneurial runways (Shepherd & Gruber, 2021), our findings open several avenues for future research. First, although our findings surface two different sets of narratives which lengthen or shorten a

venture's runway amid repeated pivots, we do not presume that these are the only possible narratives that could be used to justify pivoting. Narratives that draw on other contemporary themes or metaphors of change as a basis for meaning making (e.g., disruptive innovation, evolutionary change, a high impact social mission) offer other possibilities, with likely effects on an organization's ability to effectively manage such change (Knight & Tsoukas, 2019; Mantere & Ketokivi, 2013). Studying entrepreneurial runways in this way also usefully shifts the focus beyond strategic deployment of early-stage venture resources, and toward identifying narrative devices and meaning structures which allow entrepreneurs to sustain those resources and associated commitments. Second, future research might look to examine particular boundary conditions of our theory. While our study suggests the utility of the scientific revision narrative, because this narrative relies on abstraction and the diffusion of accountability, it is possible that stakeholders in certain settings might seek greater precision and react negatively. Third, although we have focused on two particularly important stakeholder groups—employees and investors—future research can further enhance our understanding of the cultural embeddedness of entrepreneurial runways by attending to the various forms of capital identified by Lounsbury and Glynn (2001), including not only financial and human capital, but also technological, intellectual, social, and institutional capital.

The Enabling and Constraining Role of Stakeholders' Orientations in the Strategy and Organizing of Entrepreneurial Ventures

Stakeholder theorists have long noted how strategy and organizing are fundamentally enabled and constrained by the multitude of different groups which inform and then react to organizational policies and practices. While early work relied on coarse stakeholder classifications to understand these effects (e.g., customers, employees, investors), more recent

work has suggested how even within groups, stakeholders can vary based on their orientations, which in turn shapes how they interact with the organization and other stakeholders around joint value creation (Alvarez & Sachs, 2023; Bridoux & Stoelhorst, 2016; Kujala et al., 2022). These studies highlight how *communal sharing*, *market pricing*, *authority ranking*, or *equality matching* orientations can drive variation in stakeholders' approaches to joint value creation. And yet, as our literature review establishes, there is an opportunity to extend stakeholder theory through a better understanding of how these divergent orientations constrain and enable entrepreneurial ventures and their sustained access to resources, particularly given their propensity toward repeated transformations of the very activities on which joint value creation is based. Indeed, while recent work by Alvarez and Sachs (2023) draws attention to the linguistic microfoundations of these communal sharing orientations of early-stage ventures and their stakeholders' communal sharing orientations, we need further insight into how the process of repeated pivoting and associated linguistic foundations might undermine or otherwise bolster stakeholders' communal sharing orientations.

As such, our findings extend stakeholder theory by bridging with recent studies of entrepreneurial narratives, highlighting how stakeholders' orientations affect the resonance of particular narratives (Soublière & Lockwood, 2022). Whereas prior studies have illustrated how resonance may occur when audiences perceive a narrator's story as legitimate (Dalpiaz, Rindova, & Ravasi, 2016; Giorgi, Lockwood, & Glynn, 2015), our findings illustrate how these legitimacy judgments are affected by stakeholders' orientations. Given that the narration process is multi-directional, we show that cultural resonance is not merely about the broad legitimacy of a given story (Soublière & Gehman, 2020), as both the pivoting narratives we observed were legitimate. Critical to this process is the overlap between stakeholders' motivations and expectations for

joint value creation and resource exchange arising from their orientations, and the promises articulated in a pivoting narrative (Garud, Schildt, & Lant, 2014).

Second, drawing on prior research, we might presume that what resonates with particular stakeholder groups is likely to remain stable over time (i.e., if an entrepreneur's pitch resonates with investors at Time 1, it will resonate at Time 2 as long as the narrative and their orientation remains the same) (Fisher, Neubert, & Burnell, 2021; Giorgi, 2017; Lounsbury & Glynn, 2019). By comparison, our findings suggest the process of repeated pivoting can either break down or reinforce the narrative's initial resonance between particular narratives and stakeholders' orientations. Concretely, our study highlights the importance of scientific revision pivoting narratives and the communal sharing orientation, wherein repeated transformation helps to actualize stakeholders' initial expectations. While our case highlighted the pervasiveness of two of the four stakeholder orientations referenced in prior studies, future research might look to extend these insights by considering settings wherein all four orientations are present. Moreover, even as we answer recent calls to account for differences in stakeholder orientations (e.g. Johnson-Cramer, Phillips, Fadlallah, Berman, & Elms, 2022; Kujala et al., 2022), our study opens up opportunities to further explore the impact of stakeholders' orientations on other aspects of strategy and organizing beyond organizational transformation and resource acquisition, including inter-organizational collaboration.

Boundary Conditions

The insights from our research raise questions of generalizability. To what extent might our findings apply to other organizations beyond Respiro? One strength of qualitative studies is their ability to offer more incisive distinctions than previously available (Tsoukas, 2009). In this way, they enhance our understanding of organizational life by allowing us to see things we could

not see before. In turn, such studies set the stage for further refinements and elaborations as new “non-prototypical” cases are encountered. From this vantage point, our insights are most applicable to organizations closest to Respiro but invite re-theorization as they are extended to organizations farther from this template.

Although Respiro was a micro-cap venture, the potential relevance of our findings to larger companies is significant for several reasons. Larger organizations, with their more complex stakeholder structures and broader resource bases, are likely to face similar challenges in sustaining support through repeated transformations. While conventionally we might assume that large organizations will avoid repeated transformations, the increasing prevalence of dynamic and fast changing environments suggests that such transformations may become commonplace. Although the principles of narrative consistency and cultural resonance surfaced in our model are likely to hold true across different organizational sizes, the specific narratives and prevalence of different stakeholder orientations might differ depending on the scale and diversity of larger entities. This suggests that even large corporations could benefit from framing their transformations in a way that aligns with the diverse orientations of their stakeholders, thereby enhancing the stability of resource flows during periods of continuous change.

CONCLUSION

Our study underscores the intricate dynamics that occur when an organization repeatedly pivots in response to changing market conditions and internal challenges. The findings highlight the limits of organizational flexibility, revealing that while some stakeholders may initially respond positively to narratives of revolutionary change, sustained resource commitments are more likely when leaders frame these pivots as part of a scientific revision process. This culturally-informed model of repeated organizational transformation suggests that understanding

the varied orientations of stakeholders—whether market pricing or communal sharing—can also significantly impact the flow of resources in times of transformation.

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TABLE 1: SUMMARY OF DATA

Time period	Ethnographic observations	Interviews	Archival documents
2008–2012			24 broker reports (public) 16 newspaper articles (public) 5 annual reports (public) 4 business plan documents 2 board reports and minutes 13 investor presentations 89 media releases (public)
2013 Q1-Q2	18 operational meetings 1 board meeting 5 strategy workshops 10 investor events 25 informal conversations and emails	2 executive interviews (CEO) 9 employee interviews 2 board member interviews	2 company newsletters (public) 6 media releases (public) 4 investor presentations 3 PowerPoint presentations 1 board report and minutes 2 broker reports (public) 5 Trading Room threads (public)
2013 Q3-Q4	6 operational meetings 1 strategy workshop 8 investor events 4 informal conversations and emails 1 board meeting	2 executive interviews (CEO) 2 board member interviews 6 employee interviews	2 company newsletters (public) 8 investor presentations 2 board reports and minutes 2 PowerPoint presentations 8 media releases (public) 8 screenshots of company website (public) 1 annual report (public) 6 Trading Room threads (public)
2014 Q1-Q2	17 operational meetings 3 board meetings 7 strategy workshops 4 investor events 13 informal conversations and emails	2 executive interviews (CEO) 4 board member interviews 18 employee interviews	2 company newsletters (public) 3 board reports and minutes 5 internal research reports 2 investor presentations 5 media releases (public) 2 PowerPoint presentations 5 Trading Room threads (public)
2014 Q3-Q4	7 operational meetings 2 board meetings 5 strategy workshops 2 informal conversations and emails 1 investor event	2 executive interviews (CEO) 4 board member interviews 18 employee interviews	2 company newsletters (public) 2 board reports and minutes 1 PowerPoint presentation 1 annual report (public) 14 media releases (public) 13 Trading Room threads (public)
2015 Q1-Q2	2 board meetings 2 operational meetings 1 strategy workshop 3 informal conversations and emails	1 executive interview (CEO) 3 employee interviews	2 company newsletters (public) 1 PowerPoint presentation 1 board report and minutes 3 investor presentations 1 internal research report 14 Trading Room threads (public)
2015 Q3-Q4	1 board meeting 1 investor event		3 company newsletters (public) 1 board report and minutes 10 Trading Room threads (public)
Total	150 ethnographic observations	75 interviews	245 archival documents

TABLE 2: TIMELINE OF EVENTS AT RESPIRO

Timeline	Event history
Feb 2008	<u>Company announcement</u> : Respiro founded as a patent and licensing business with ownership of various medical patents. Makes first two patent acquisitions in pain relief. <u>Human resources</u> : Alessandro serves as founder and CEO of Respiro. Philip joins business in finance.
Feb 2009	<u>Company announcement</u> : Respiro acquires nasal stent patents. <u>Human resources</u> : Adam works as consultant for Respiro.
Mar 2010	<u>Company announcement</u> : Respiro makes a fourth acquisition in a medical technology space. Changes its name. <u>Human resources</u> : Liz (business in administration and negotiations) and Martin (product management) join Respiro.
Aug 2011	<u>Company announcement</u> : Respiro starts negotiations with a global manufacturer to license pain relief technologies.
Oct 2012	<u>Financial resources</u> : Global licensing deal falls through. Company is running short of capital. Market valuation drops by an estimated 80% to \$2 million with \$326,000 cash on hand and a burn rate of approximately \$100,000 a month.
Dec 2012	<u>Human resources</u> : Alessandro fired as CEO.
Feb 2013	<u>Human resources</u> : Adam becomes CEO. Three full-time staff stay on (Philip, Martin, and Liz). <u>Financial resources</u> : Adam imposes radical cost-cutting to reduce the burn rate and stretch the cash on hand (i.e., lengthen the runway). Cutting all consultant and contractor costs, office overhead, etc. saves \$50,000 a month in expenses and extends Respiro's cash on hand to 6 months. Building on his revised strategy (Pivot 1), Adam plans a small capital raise within the next 3 months and prepares an investor memorandum to sell non-core technologies in the patent portfolio.
Pivot 1 starts Re-orient resources away from patent and licensing to sports product manufacturing (SportsPro)	
Mar 2013	<u>Company announcement</u> : Adam commits to launch SportsPro product by end of calendar year. <u>Financial resources</u> : Capital raise of \$500,000 to fund product manufacturing and marketing launch of SportsPro, at a valuation of \$3 million. Provides Respiro with an additional 10 months of cash based on current burn rate. At this stage, considerable uncertainty about whether it will need to raise capital again within 12 months, depending on revenue generated from the launch of SportsPro and sale of patent portfolio of assets.
May 2013	<u>Human resources</u> : Nadine (product) and Amanda (marketing) join Respiro.
June 2013	<u>Financial resources</u> : Large write-down in value of Respiro's patent portfolio as patents are sold off. For example, one technology that had received \$2 million in R&D investment over the preceding 5 years was sold for \$500,000. Although a significant reduction in valuation, this provides cash for the SportsPro launch. Sales of these assets to third parties generate an extra \$1 million in cash on hand and is in line with enacting Pivot 1. <u>Human resources</u> : Philip leaves and is replaced by Julia (finance).
July 2013	<u>Company announcement</u> : SportsPro product designs completed. Respiro changes its name and launches new website.
Oct 2013	<u>Company announcement</u> : SportsPro manufacturing begins. <u>Human resources</u> : June (marketing) and Kate (admin) join Respiro.
Dec 2013	<u>Company announcement</u> : SportsPro product launched for sale on website (primary sales channel) in December.
Mar 2014	<u>Financial resources</u> : First quarter sales significantly below expectations, generating approximately \$200,000. Cash on hand is \$756,000, but the burn rate has grown back to approximately \$100,000 per month. This means another capital raise is expected within the next 10 months, providing the impetus for a pivot to a new strategy and a search for additional resources. <u>Company announcement</u> : CEO commissions market review of SportsPro based on negative customer feedback.
Pivot 2 starts Re-orient resources towards developing a "breathing platform" and producing SleepPro	
April 2014	<u>Company announcement</u> : CEO announces new R&D plans for drug delivery and sleep applications.
Jun 2014	<u>Financial resources</u> : CEO secures new sales and distribution channels with bricks-and-mortar retailers in Europe and the United States to sell SportsPro and launch the new sleep application. Starting order of \$100,000 in product sales to fill the retail stores is part of the deal. However, the burn rate to support these new activities has grown to \$200,000 a month, surfacing the need to raise capital to sustain this strategy. CEO goes on a roadshow to update shareholders and persuade them to make commitments in line with Pivot 2.
Aug 2014	<u>Company announcement</u> : New international office established in the United States.
Oct 2014	<u>Financial resources</u> : Sales growth from SleepPro outpaces SportsPro, reaching approximately \$40,000 a month; SportsPro revenue remains flat at about \$75,000/quarter or approximately \$300,000 per year. Capital raise to further support manufacturing and marketing is closed at \$2 million at an improved valuation of \$6 million (double the valuation from 18 months earlier). This is positive for some but underwhelming for others. With

revenue and the capital raise, cash on hand is estimated at around \$2.43 million, which at the current burn rate extends the runway by 18 months. However, financial pressure is strong.

Jan 2015 Company announcement: CEO announces shift from sports to engaging with sleep community via interviews and conferences. Commences “test-and-learn” program around SleepPro with a major U.S. pharmacy chain.

Human resources: Amanda leaves Respiro.

Mar 2015 Human resources: Richard (marketing) and Patrick (product) join Respiro. June leaves Respiro.

*****Pivot 3 starts** Re-orient resources towards medical applications, with a major partnership in medical cannabis***

April 2015 Financial resources: Cash position for Respiro is challenging. Despite runway, its burn rate has increased due to R&D and sales expenses to build market traction. This means Respiro once again needs to raise capital within the next 12 months. Financial savings are made as CEO receives board approval to end R&D investment in SportsPro (although sales continue). CEO also begins exploring opportunities to pivot into medical cannabis market as basis for a new fundraising campaign.

Human resources: Brett joins Respiro.

Sep 2015 Financial resources: SleepPro sales growing slowly. Large retailer distribution deal signed with U.S. pharmacy chain after delays, but sell through is slow.

Oct 2015 Financial resources: Capital raise of \$2 million with goal of adding medical cannabis to nasal stent delivery. The news coincides with a higher market valuation of \$12 million, as medical cannabis attracts higher valuations.

Dec 2015 Company announcement: Work underway to secure development and distribution partnerships to produce new medical cannabis product.

TABLE 3. ILLUSTRATIVE DATA ANALYSIS

Framing of pivoting narratives	Revolutionary	Scientific revision
“The past”	<i>Break from</i> The CEO frames the need for “a complete break” with patent and licensing strategy: “I said [to staff and investors], ‘We had a write-off. We’ve got to kill everything’” (executive interview-02). An investor describes Adam’s SportsPro strategy as “a clean slate” and working with Adam rather than Alessandro as a “complete change” and “breath of fresh air” (board interview-02).	<i>Connect with</i> The CEO frames the pivots as a process of scientific revision that builds on the past, rather than a series of “single shots” that depart from the past: “What we are now trying to do is diversify our strategy. We view the market in its entirety and try to achieve a continuum where we play across different parts of the market. And so that is a very different proposition to other people who are looking at a very small section [of what we do] and saying, ‘You are a single shot on goal’ and not understanding it’s a platform, not just a product” (CEO in workshop-08). An investor interprets Adam’s pivot to sports not as a clean slate, but as “a process of now locking in the IP [Respiro has] and de-risking it getting to market” (investor event-08).
“The future”	<i>Proximate</i> CEO explains to employees that his shareholder promise is based on short-term deliverables: “Basically, I said to shareholders ... ‘Here is the vision of the future’ ... which we are going to deliver on now and have products to show within 12 months” (operational meeting-06). Investors echo their understanding of the new strategy as creating “a very well-structured plan designed to deliver concrete milestones and results” going forward (investor event-12). Employees hear from the CEO that the revolution involves moving away from constant change to concrete delivery: “We need to get the shareholders’ confidence back. So, the only way we are going to do that is actually to deliver on what we say we can deliver on” (employee interview-04).	<i>Distal</i> The CEO presents a broad vision that is couched in an abstract, loosely defined future state: “I’ve always been really clear about the picture, which is that we want to radically change the way the world breathes. But along the way you have to do a series of experiments to fill out the picture. They are the pixels ... Even when all they [i.e., employees] experience is the pixels on the day-to-day, I still continue to message the picture” (executive interview-08). The board chair, who is both an investor and represents other investors, recognizes Adam’s vision as distal, but views this as part of Respiro’s appeal: “Adam is a visionary ... one of the things I look for in an investment is the size of the prize. Far too many startups aren’t really startups at all; they are just small businesses” (board interview-04). Employees reproduce and amplify the tendency to zoom out when describing the opportunity: “What we’re realizing now— and what the science is telling us—is that there’s a market, there’s an opportunity. ... If we build it, it could be something big. And not just something big in Australia. It’s the idea that it could be something big globally” (employee interview-18).

Source of agency	<i>Individual</i> The CEO demonstrates the feasibility of the revolution by distilling it into simple analogies (i.e., the “Breathe Right playbook”) where individual effort and ingenuity can make the difference. “The vision of the future is exactly what I presented again today [to shareholders at the event]: sport as a way of socializing the technology, understanding if we can get it in there and taking the playbook— the GlaxoSmithKline Breathe Right playbook [where an football player’s use of the product allowed it to go viral] of get it in sport and then get it into snoring—we’ve got a chance. ... I started doing investor presentations with that story upfront and getting people to give it a go” (CEO interview). Investors recognize that the CEO is key to the Respiro turnaround: “Alright Adam, let’s see what you’ve got! I’m set [with my participation in the capital raise] and backing you ... To the moon!” (Comment on Trading Room thread-03)	<i>Collective</i> CEO frames the pivoting as about the capability of the team, rather than a technology or person: “I think that it is also about not just proving out the technology but proving up the capability of the team and the determination of the team to go, ‘Well, we didn’t think we could do that, but neither did anybody else. So now that we’ve done that, what do we go for next? What’s the moonshot?’” (executive interview-06). The process of pivoting is seen as a collective process that is independent of the individual, rather than driven by individual agency. Nadine explains: “if the answer had been different, we would have gone with that different approach. The focus is on leading change to ensure we have data every step of the way” (employee interview-19).
Stakeholders’ orientations	Market pricing	Communal sharing
Basis of exchange	<i>Extractive</i> Julia talks about her relationship with her career in professional terms: “I have been a CFO at various companies before ... I have always been involved in finance operations for small companies with a focus on getting growth” (employee interview-16). She goes on to ascribe this relationship through narrow roles she plays within the organization as “custodian of the CAGR [compound annual growth rate],” and as a “financial gatekeeper ... unswayed by more emotional appeals in what we should do, rather than what the numbers say” (employee interview-16). Julia contributes in meetings by adding professional qualifiers to her statements: “As the CFO, my view would be ...” (operational meeting-24); “I think the CFO’s focus should be on ...” (operational meeting-24). Amanda, a marketing director, frequently takes the opportunity to refer to her broader, professional pathway outside of Respiro: “My background is in marketing, and predominantly sports marketing. I used to work for [a sports association] where I did all their marketing and outreach with the community...so I see this as an extension on that but on the product side” (employee interview-05). A day trader makes clear that they view their exchanges with companies opportunistically in financial terms only: “Let’s not kid ourselves. There	<i>Generative</i> Kate relates to employment interactions in terms of how the company’s entrepreneurial purpose helps her make a societal contribution (rather than advance her own professional career): “The thing that makes this company exciting for me is the purpose ... I like the fact that it is always trying to be big and bold, irrespective of how that gets achieved” (employee interview-27). Patrick describes his work in terms of what it allows him to contribute on “the world’s stage” through science commercialization (employee interview-34). An investor explains at the annual general meeting that they commit to financing companies because of what the products can do: “I shouldn’t say this but I’m in it [as a shareholder] not for the returns, but because I believe in what [the technology] can do to change lives” (investor event-27).

	are lots of opportunities on the sharemarket ... I'm here for the return" (Trading Room Thread-19).	
Resonance with pivoting narrative	June (with a market pricing orientation) reacts positively to CEO's narrowing focus on sports science because it offers credibility: "One thing [Adam] said today that spoke to me was that we are a 'technology company, not a product company' I think that is exactly right because our credibility ultimately comes from results...our users achieve in sports performance" (employee interview-13). Amanda (with a market pricing orientation) warms to commitment in sports because it is clear to her who the customer is and how marketing awareness is built through sports fans following elite athletes: "In terms of [market] acceptance, even as a niche product in sport there is a degree to which you have to put in the time to build acceptance [amongst sports customers copying elite athletes] ... Even when I think about my experience building [a sports team] in [this city], you have to prove your value [to potential customers] who value using the product [in their exercise routine]" (employee interview-05).	Liz (with a communal sharing orientation) reacts positively as the strategy changes because the narrative of scientific revision remains intact. The mission remains a "significant topic" and therefore the degree of change is merely "updating" rather than something fundamental: "There might only be a small pocket of people that have had to adapt to a changing story, but I think breathing and sleep is such a significant topic. It's a 'right now' topic that is easy for people to make that transition with us. For me we have been on a consistent journey and this is just about updating people on where we are up to." (employee interview-23). Nadine (with a communal sharing orientation) reacts positively even after the company pivots to cannabis because the narrative of scientific revision still tells a "cohesive" story for her: "I think it helps that [Adam] has a cohesive story about where [Respiro] needs to go. I think if your story hangs together and it makes some kind of business sense, people are going to listen to what you've got to say next or at least give you a chance to have a crack at it. That is what appeals to me in what [Adam] is now saying" (employee interview-29). Investor (with a communal sharing orientation) likes what Adam is projecting for Respiro even though it involves pivoting the strategy because they can see the consistency of the scientific revision narrative: "I get that [Adam has] to make some changes....What you are trying to do is not become tactical but stay strategic within the framework of what you can afford to do...[and to move at] the pace you can afford to move at...so in that respect I like [Adam's] and the team's approach" (Investor event-24).
Lack of resonance with pivoting narrative	Julia (with a market pricing orientation) later reacts badly to the shift in the revolutionary narrative toward the background: "I think that the performance of [SportsPro] is quite concerning and very disappointing...The approach to dealing with that is perhaps indicative of some of our strengths and some of our weaknesses... For what we have spent, this is a really low ball result, but rather than stick at it [Adam] wants to change again" (employee interview-55). Investor ChilliTrader (with a market pricing orientation) reacts negatively to Adam's announcement to pivot away from SportsPro: "Dear me! Have gone back reviewing 7 months of charts and promises and found that the shareprice has never been so low. So many investors have been burnt and had enough of the lies. I am also selling" (Trading Room thread-17).	[Unobserved]

Resource commitments	
Human resource commitments	<u>Human resource increase:</u> Amanda and June organize weekend visits to cycling events to sell SportsPro. They do not get paid for these extra activities, and they enlist family and friends as extra volunteers as the pivot to SportsPro launch comes to fruition (informal conversation-22). <u>Human resource increase:</u> Brett uses his personal social media to market SleepPro after pivot is announced, even though this goes beyond his role as a product manager. He also uses his personal networks to secure extra marketing sponsorship and support for Respiro at sleep conferences in the first year (information conversation-42). He described this in an interview as “a favor” (employee interview-52). <u>Human resource withdrawal:</u> Julia leaves after feeling frustrated by lack of traction she has with CEO as he continues to pivot in response to poor financials: “One of the pluses of Adam is that he is not very disappointed when the results are bad. But that is also one of the minuses, because he does not address the real problems too” (employee interview-55). <u>Human resource increase:</u> Liz goes from supporting licensing negotiations at Respiro (2010–2013), to taking on responsibilities for running project management for manufacturing SportsPro (2013–2014). These are not promotions, as she gets only a small pay raise. This represents a resource increase as she is further expanding the venture’s coverage of functional areas and widening its resource base without adding extra cost or hiring more people (informal conversations-29). <u>Human resources sustained:</u> Despite the significant effort to launch and expand Respiro’s distribution, its revenue grows slower than costs, squeezing profit margins. Although Liz acknowledges this is “a cause for concern,” she remains willing to sustain her human resource commitment. She travels overseas to set up offshore distribution networks for Respiro because she still believes in the mission of opening up more stores to diversify its physical distribution presence: “I’ve said [to Adam] I’m very happy to do whatever Respiro needs me to” (employee interview-24).
Financial resource commitments	<u>Financial resource increase:</u> “Strong announcement of [SportsPro] trial results today, with store distribution count up. Me sees an opportunity for a lift over the next few months ... Anyone else thinking of participating in the [capital] raise? I’m looking to get in now [and invest more capital in Respiro]” (Trading Room thread-07). <u>Financial resource withdrawal:</u> Withdrawal of capital as investors divest money following the announcement of a new pivot and capital raise: “Sad situation with Respiro not delivering on any front. Wonder if the two brokers that promised so much have been monitoring the company financial performance and shareprice trending downwards?... All the uprampers have gone with their tail between their legs. No more positive posts from them. They have even lost the energy to knock my observations. Remind them that the capital raising was at what price..... 2.5cents ????. @[Trader ABC] you should have sold earlier” (Trading Room thread-34). <u>Financial resource increase:</u> Adam goes with a broker to approach investors during a capital raise to fund the expansion of SleepPro. The CEO relays his conversation with investors to the board as follows: “[Winfred] has said he will come into the stock [and fund us in this capital raise] because a number of things line up for him. He knows [the Chair], he’s met me a few times now, and [the broker] said that this was one of his top picks because of the disruptive nature of the technology” (board meeting-06). <u>Financial resources sustained:</u> Even as the share price falls, investors commit additional capital to Respiro because they believe in the science. As one investor noted, “Despite the detractors, one of the pluses Respiro has that many startups don’t is that the technology is proven” (Trading Room thread-42)! He commits additional capital despite bad financial news. <u>Financial resources sustained:</u> When there is a need to pivot again, mission-driven investors sustain their financial commitments, often consciously distinguishing from day traders. The Chair accounts for the rationale of a mission-driven investor during a board meeting: “I also had a quite a long chat with [a mission-driven investor] yesterday... The point I’ve been making to [him] is clearly that we do have this disconnect between where the company is at today... in terms of penetration of stores and sales starting to come through (getting sales traction, etc., etc., without overplaying that) and the share price. You know, and they recognize the fact that this is a slower burn because it’s not a novelty. They believe in the product and it’s just a matter for the market to catch on” (Chair in board meeting-09).

TABLE 4. ILLUSTRATIVE INDIVIDUAL RESOURCE COMMITMENTS AMID REPEATED PIVOTS

FTE	Tenure	Role	Pivots			Resource Commitments
			1. Sports (Apr 2013– Mar 2014)	2. Sleep (Apr 2014–Mar 2015)	3. Cannabis (Apr 2015– ongoing as of Dec 2015)	
Philip	2008– Jun 2013 (forced exit)	Finance	CSO/SR	-	-	Provided support in the finance function during early stages of business but was involuntarily separated when the new CEO arrived.
Liz	Mar 2010– ongoing	Admin/project manager/product manager	CSO/SR	CSO/SR	CSO/SR	Repeatedly embraced major role changes, from patent licensing to project management to distribution deal negotiations, as needs of the business changed (i.e., not for career advancement). Went out of her way to help other employees during pivots.
Martin	Mar 2010– ongoing	Product manager	CSO/SR	CSO/SR	CSO/SR	Product manager but also personally invested in Respiro and raised capital for the company through friends and family.
Nadine	May 2013– ongoing	Admin/marketing/ sales	CSO/SR	CSO/SR	CSO/SR	Willingly changed roles as needed, from office administration to product management for SleepPro to overseeing sales and marketing data for distribution partners (i.e., not for career advancement).
Amanda	May 2013– Jan 2015 (voluntary exit)	Marketing	MPO/R	MPO/R	-	Not only an employee, but also an active customer of SportsPro. Voluntarily acted as a brand ambassador at her personal gym. Ceased extra activities during Pivot 2 and exited during Pivot 3.
June	Oct 2013– Mar 2015 (voluntary exit)	Marketing	MPO/R	MPO/R	-	Voluntarily provided brand and marketing support for SportsPro at weekend triathlons and through her friends and family during events. Withdrew commitment in 2014 and then left the company.
Kate	Oct 2013– ongoing	Office manager/ executive assistant	CSO/SR	CSO/SR	CSO/SR	Recognized by colleagues as being willing to go above and beyond, even when it involved menial jobs. Described herself as being a “dogsbody” for Respiro in self-recognition of this extra resource commitment to the company.
Julia	Jun 2013– early 2016 (voluntary exit)	Finance	MPO/R	MPO/R	MPO/R	Personal investor together with friends and family in Pivot 1, but no participation in follow-on investment from Pivot 2 onward. Her investor messaging turned negative at investor events in Pivot 3, at which point she left the company.
Richard	Mar 2015– ongoing	Marketing	-	CSO/SR	CSO/SR	Actively supported Kate in social organizing/volunteering around office.

Patrick	Mar 2015–ongoing	Sales/product manager	-	CSO/SR	CSO/SR	Went above and beyond his role by assisting with projects, analytics, IT support. Also became a personal investor in Respiro.
Brett	Apr 2015–ongoing (voluntary exit)	Product developer	-	MPO/R	MPO/R	Initially enthusiastic. Voluntarily engaged in social media postings about his own use of SleepPro. Provided extra marketing resources beyond his role responsibilities during Pivot 2, but stopped after Pivot 3.
Jim Wise	Mid-2013–mid-2014	Day trader	MPO/R	MPO/R	-	States on online chat forum that they are buying up Respiro stock and participating in capital raises ahead of SportsPro release. Expresses disappointment with the pivot to SleepPro and eventually liquidates his position.
Chilli Trader	Mid-2013–mid-2014	Day trader	MPO/R	MPO/R	-	Buys and sells shares in Respiro around news of SportsPro development. Divests because pivot to SleepPro is seen as “diluting” shareholders rather than a continuation of growth.
Gekko	Mid-2014–mid-2015	Day trader	-	MPO/R	MPO/R	Buys into Respiro capital around store expansion for SleepPro. Becomes disaffected and sells when revenue doesn’t deliver and company pivots to cannabis. Reacts negatively to capital raises.
George	June 2014–ongoing	Mission-driven investor	CSO/SR	CSO/SR	CSO/SR	High net worth individual who first invests in Respiro mid-2014, after invitation from Chair and personal connection with CEO. Participates in follow-on investments during capital raises to increase ownership stakes.
Robert	June 2013–ongoing	Mission-driven investor	CSO/SR	CSO/SR	CSO/SR	Amateur athlete and high net worth individual who becomes interested in SportsPro and first invests in mid-2013. Gets to know CEO personally, and grows investment through all capital raises and market purchases in 2014 and 2015. Committed to global expansion of the science and technology
Michael	Before Feb 2013–ongoing	Mission-driven investor	CSO/SR	CSO/SR	CSO/SR	Investor in Respiro before Adam becomes CEO. Not a high net worth investor, but knows CEO personally and believes in Adam’s ability to drive business. Holds investment through ups and downs, with further investments during capital raises in 2013, 2014, and 2015.

MPO = Market pricing orientation; CSO = Communal sharing orientation; SR = Scientific revision pivoting narrative; R = Revolutionary pivoting narrative

■ Narrative resonates ■ Narrative does not resonate ■ Ambiguous/ambivalent

FIGURE 1: SHARE PRICE AND CAPITAL RAISES AT RESPIRO

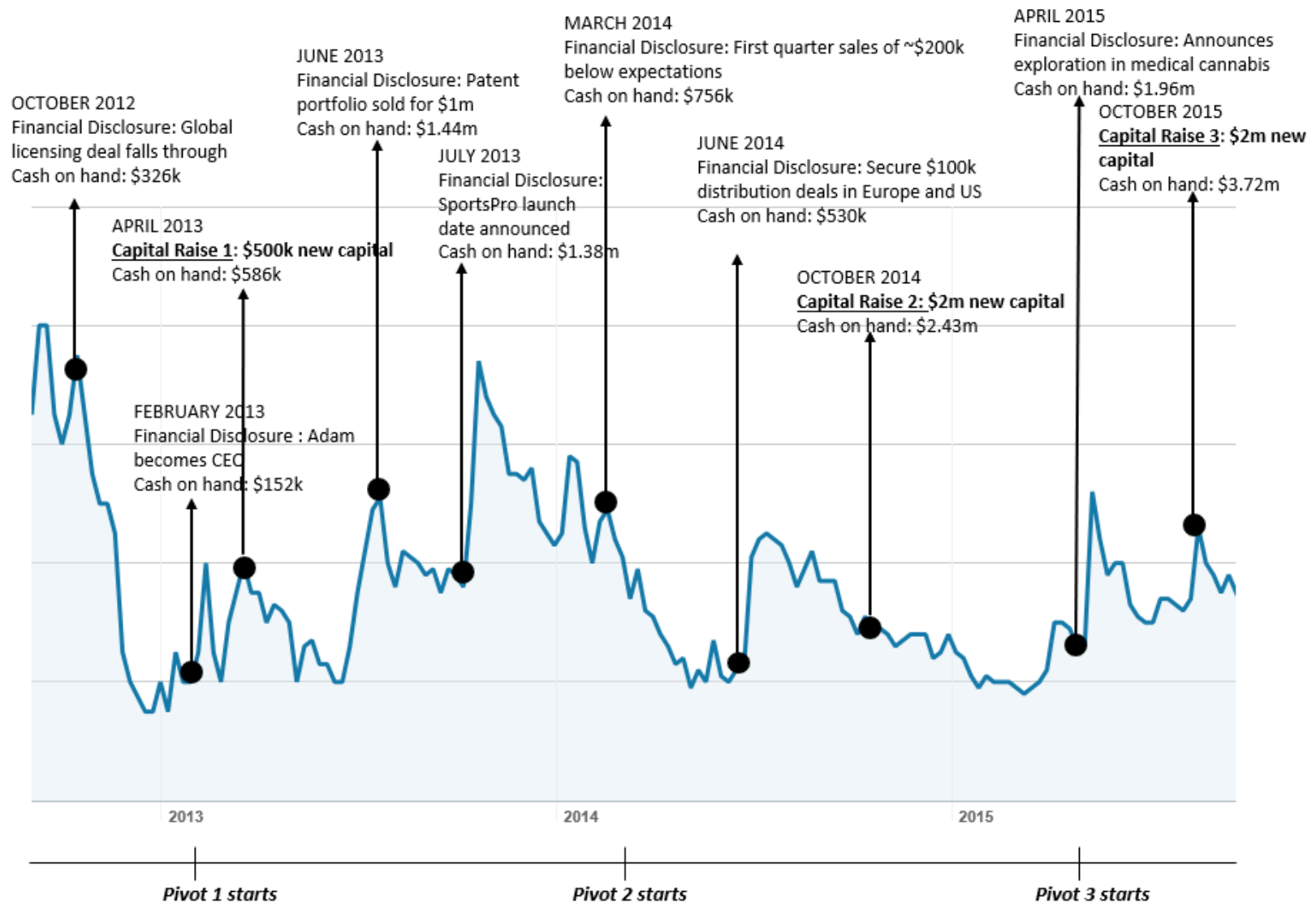
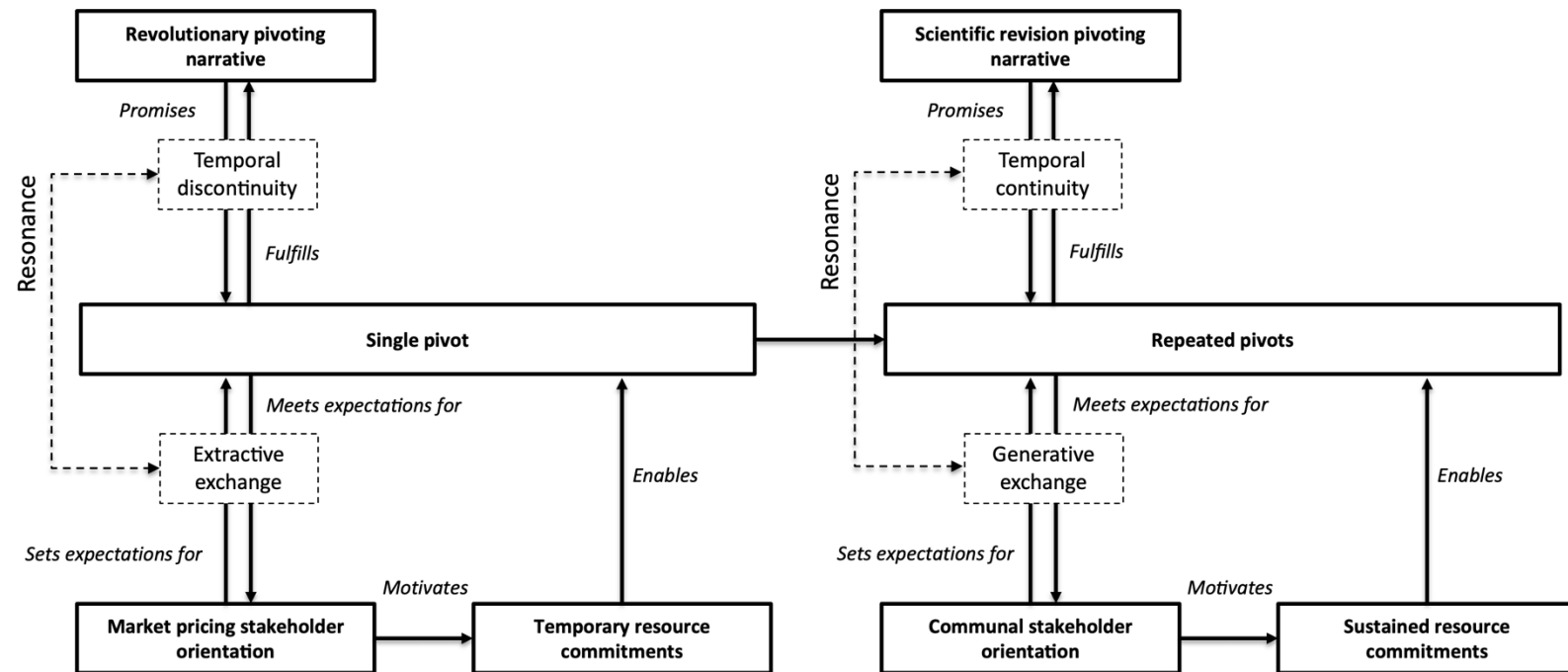


FIGURE 2: HOW SCIENTIFIC REVISION NARRATIVES AND COMMUNAL STAKEHOLDER ORIENTATIONS ENABLE REPEATED PIVOTING



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