

Tangibility, Momentum, and the Emergence of *The Republic of Tea*¹

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ABSTRACT

Understanding the day-to-day dynamics of entrepreneurs in action is critical to explaining how new businesses come into being, and why some of them don't. Although there are very few in-depth data sets of this kind, we utilize one of them for our analysis: the set of transcripts published in and about *The Republic of Tea*. Our draw on complexity science to examine the temporal dynamics of emergence in this case, by exploring the influence of time in the process of organizing this business, and on the continuum of outcomes for emergence, which we introduce in terms of 1st degree, 2nd degree and 3rd degree emergence. We ground our analysis on Gartner's notion of the "tangibility" of entrepreneurial actions, arguing that the more tangible the entrepreneur's organizing behavior – i.e. the more concrete and the more externalized beyond the team, the more momentum will be generated in the process, and in turn, the higher the degree of emergence outcomes. Our analysis provides support for this claim; we also explore some of the interpersonal interaction dynamics that contributed to the ebb and flow of organizing in *The Republic of Tea*.

INTRODUCTION

In this era of strategic entrepreneurship, multi-billion dollar “entrepreneurial” acquisitions and international venture capital networks, it is easy to forget the main activity of entrepreneurs: the organizing of new (and usually small) companies. To make an analogy to the classic essay “Even dwarves started small” (Aldrich & Auster 1986), the origin of even the most high-flying, fastest growing companies is just a vision that gets worked out step by step, move by move (Katz & Gartner, 1988). Even the largest organizations emerge and grow through a process of *organizing*, becoming more and more tangible as the founders engage with potential advisors, suppliers, customers, and so on (Gartner, 1985). We know something about how these interactions unfold over time (Lichtenstein, Carter, Dooley & Gartner, 2007) and lead to new business creation (Brush, Manolova & Edelman, 2008). But the drivers of organizing, and the ways in which organizing leads to emergence; these questions, although critical, are still somewhat of a mystery.

One reason we know so little about the dynamics of organizing is because there is so little rich data that tracks the thoughts and actions of entrepreneurs *while* they are starting a new business. Such data is extremely hard to come by, especially since it’s impossible to know at the outset whether the idea will actually become a start-up. If only there was a data set which presented the entire organizing process in a nascent business that resulted in a successful start-up. With such data could distinguish each “organizing move” by the founders, and thus discover what really drives the emergence of at least one business.

Surprisingly there is such a data set – the complete communications between the founders of The Republic of Tea (Ziegler, Rosenzweig & Ziegler, 1992). We use this data set to explore how the organizing moves of these nascent entrepreneurs led to the emergence of the company. We show how the key to organizational emergence is tangibility, i.e. moves which are more concrete, often going beyond the founders themselves (Gartner, 1993). More broadly, we use these findings to discuss how emergence can and should be central to the field of entrepreneurship as a whole.

ORGANIZING AS EMERGENCE

Entrepreneurship as Organizing

At the heart of new venture creation is the process of organizing: an ongoing series of interactions and events aimed at turning an idea into a tangible venture (Gartner, 1985). Organizing involves "...planning and coordination of resources, people, ideas, market mechanisms, as well as the establishment of routines, structures, and systems" (Gartner & Brush, 2007) – all of which formalizes the entrepreneur's intention to create their business (Bird, 1992). Given the uncertain and "equivocal" nature of nascent ventures (Katz & Gartner, 1988), the more tangible an entrepreneur's actions, the more likely that others will perceive that s/he is starting a legitimate organization (Gartner, Bird & Starr, 1992). Thus, a good place to explore the dynamics of entrepreneurial organizing is through the *tangibility* of actions that lead to organizational emergence (Gartner, 2003).

Recent in-depth studies have explored the organizing dynamics of nascent entrepreneurs. Data from the "Panel Study of Entrepreneurial Dynamics" (Gartner, Shaver, Carter & Reynolds, 2004) includes 28 tangible organizing behaviors that most entrepreneurs tend to enact in organizing their ventures (Gartner & Carter, 2003). Some studies using this data have argued that organizational emergence is generated through legitimizing behaviors, i.e. decisions and actions which lead others to believe in the tangibility of the firm (Delmar & Shane, 2003; 2004). In contrast, a study of the temporal dynamics of these nascent entrepreneurs showed that successful emergence was the result of pacing, timing, and momentum in organizing (Lichtenstein et al., 2007) – not the content of the behaviors themselves. These studies do agree that emergence is generated through concrete behaviors and actions and to a lesser extent through formal business planning, far more so than describing potential goals or mulling over business concepts.

A similar result was shown at a very micro-level, by tracking one entrepreneur's week-to-week decisions and actions – her *organizing moves* – as she started-up a health-oriented business

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(Lichtenstein, Dooley & Lumpkin, 2006). Their analysis revealed an “emergence event” that was clearly associated with increased tangibility: changes in *tactical* behaviors came first, followed by changes in strategic *decisions*, which were followed changes in her perceived *goals*. In other words, it was the behavioral and tangible (tactical) moves that were at the core of emergence in this case. We build on this finding, through a temporal analysis of organizing at ***The Republic of Tea***, based on the insights from complexity science.

From Organizing to Emergence via Complexity Science

Complexity science provides a powerful method for explaining the process of emergence, especially in entrepreneurship (McKelvey, 2004; Lichtenstein et al., 2007). According to complexity science, organizing is a dynamic system in which its agents – the founders and other closely involved individuals – are interdependent and heterogeneous. When these agents are in a *dis-equilibrium* situation – as is the case for any entrepreneurial start-up team, and when their interactions involve rich content – as one would expect in a nascent venture, certain interactions can become *amplified*, taking on more meaning and influence in the system as a whole, and feeding back to increase the dynamic dis-equilibrium of the system. As the non-linearity of these feedback loops grows, the system reaches a threshold, a decision point, a juncture when local actions begin to overlap, generating system-wide patterns and processes. If the conditions are right, these non-linearities will lead to a complete re-organization of the system – the *emergence* of a new “unit of analysis” that capitalizes on the opportunity which was the goal of this organizing effort. The new structure or system or entity that emerges – if all goes well! – can provide more *capacity* for organizing, as long as the agents in the system provide *stabilizing feedback* that “institutionalizes” the venture in the broader system (see Lichtenstein & Plowman, 2009).

According to this model, emergence is the result of an organizing process – a process that begins with *Opportunity Tension* and continues through tangible interactions within and across the system over time. Following the conversation above, it is the tangibility of these interactions which

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is crucial: The more agents strive to ‘realize’ – literally make real – their goals through concrete organizing moves, the higher the likelihood that something new will actually emerge. We summarize this view through a proposition that reflects our primary research question in the paper:

- *The higher the “tangibility” of organizing over time, the more likely that the organizing will lead to emergence.*

A Continuum of Outcomes for Emergence

What is the outcome of emergence? or asked in a smarter way: When emergence happens, what are the possible outcomes? A general answer is given by Mihata (1997: 31):

The concept of emergence...refer[s] to the process by which patterns or global-level structures arise from interactive local-level processes. This “structure” or “pattern” cannot be understood or predicted from the behavior or properties of the component units alone.... In the doctrine of emergence, the combination of elements with one another brings with it something that was not there before.

In entrepreneurship, the outcome of “organizational emergence” represents more than the creation of a “structure” or pattern; emergence leads to a new quality of being (Gartner, 1993). A good example is the fundamental shift from entrepreneurial organizing to a company that is up and running, i.e. from ‘emerging’ to ‘existing’ organizations:

The differences between emerging and existing organizations are not differences in degree across certain dimensions, but quantum differences between the two types... The process of change from the emerging organization to the existing organization is not the “growth” of certain variables, but an entirely new reconstitution, a “gestalt”... (Gartner *et al.*, 1992: 15, 17)

The reconstitution of the system, the coming-into-being of a new level of order, the creation of a distinct entity, defines this gestalt. Note that the emergence of a system through a gestalt shift is *not the same* as Mihata’s emergence of “global-level structures” or patterns of interaction. Global-level structures refer to increased order *within* the system, whereas the emergence of a new entity refers to increased order across an entire system, i.e. the creation of the new system as a whole.

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This difference, though subtle, is important: it suggests that emergence does not produce unitary outcomes; instead, the outcomes of emergence are better described as a continuum (Goldstein, 2000). Specifically, we suggest that there are three “degrees” of emergence in entrepreneurship. After introducing these three degrees of emergence, we use them as the basis of our second research question.

1st Degree Emergence: Creation of Internal Order. At a minimum, emergence is defined as the creation of structural order or system-wide properties that were unpredictable, even if you had a complete knowledge about the system’s components (Bedau, 1997). In general this degree of emergence refers to new structures or properties in the system that in some ways increase the capacity of that system to accomplish its goals (Kim, 1992; Schröder, 1998). A simple example would be the emergence of an organizational routine or repeatable process within a firm.

2nd Degree Emergence: Creation of a New Unit of Order. The second degree of emergence reflects the coming-into-being of a coherent entity (i.e. an agent) that is qualitatively different from the components that make it up (Crutchfield, 1994). More than the emergence of properties *within* a system, 2nd degree emergence generates a semi-autonomous entity that exists at “higher” level of analysis than its components, even though is constituted solely by those components and their interactions (Salthe, 1989; Schröder, 1998). A simple example would be the emergence of a new unit (department), or the emergence of a new product, both of which are somewhat autonomous, and both of which extend the reach of the system as a whole.

*3rd Degree Emergence: Creation of a New Level, **with** Supervenience.* The strongest degree of emergence occurs when the emergent entity exerts a degree of influence on its components. The technical term for this intervening process is “supervenience.” Morgan (1923), who is credited for this term, viewed evolution as a creative process in which higher-order processes “supervened,” i.e. acted on, lower level ones. Embedded in this idea is the concept of “downward causation,” which

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occurs when higher-level processes causally influence their lower level constituents (Blitz, 1992).

Sperry's (1986: 267) theory of "macro-determinism" expresses this idea in a strong way:

[T]he fate of the parts from that time onward, once a new whole is formed, are thereafter governed by entirely new macro-properties and laws that previously *did not exist*, because they are properties of the new configuration.

This new configuration is thus not only an emergent entity, but its existence literally changes the components that make it up. A simple example would be the creation of an autonomous firm, whose formal presence (legitimacy) influences the plans and behaviors of its founders, its customers, and its business environment.

Emergence as a Continuum. These three degrees of emergence are not as distinct as our definitions have suggested; instead, the outcomes of emergence are best seen as a continuum, from 1st degree emergence of internal structures to 2nd degree emergence of a separate entity to 3rd degree emergence that has effects on its components. Further, these three degrees can be placed on a scale of increasing inclusivity and explanatory power, as shown and described in Figure 1.

Please See Figure 1—*Three Degrees of Emergence*

Why does some organizing produce 1st degree emergence, while other organizing dynamics lead to 3rd degree emergence? One answer comes from complexity science studies which have found a link between the level of "opportunity tension" that drives entrepreneurial organizing (Levie & Lichtenstein, in press), and the degree of emergence that results (Lichtenstein et al., 2007). The macro-mechanisms of this link are being explored in studies of "Dynamic Creation" within Austrian economics (Chiles, Tuggle, McMullen, Bierman & Greening, in press), and in organizational applications of dis-equilibrium thermodynamics (Meyer et al., 2005). Ours is one of the first studies to explore the micro-mechanisms of organizing that lead to different degrees of emergence. Lichtenstein et al. (2007) showed that the higher the level of opportunity tension, the

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higher the likelihood of emergence. We extend their findings to suggest that higher levels of opportunity will generate more tangible organizing behaviors, which in turn will produce higher degrees of emergence. We develop this claim through the following proposition, which we use as the basis for our second primary research question:

- *The higher the “tangibility” of organizing over time, the higher the degree of emergence that will be generated.*

We now explore these research questions – reflected in our propositions – using the unique data set of Republic of Tea.

RESEARCH METHODS

The Republic of Tea – Introduction

In 1992 the business media lauded the founding of *The Republic of Tea*, a national distributor of premier teas and tea-making items. In addition to selling the “highest quality tea on earth” the company initiated a distinctive branding approach, educating Americans about “Tea Mind” by encouraging consumers to slow down and take life “sip by sip, rather than gulp by gulp” (Mitchell, 1992). What started as an informal conversation between strangers in an airplane emerged over a 21-month period into a small, innovative business that by 1994 had sales of over \$4 million. The three entrepreneurs later published a best-selling business book titled *The Republic of Tea* (Ziegler, et al., 1994), in which they reproduced their hundreds of cross-country fax transmissions detailing the conception and realization of the business. These fax transmissions were their nearly exclusive mode of communicating; as such they reveal the internal dynamics of the organization’s emergence, and are the basis for our analysis.

Identifying Organizing Moves in *The Republic of Tea*

These data represented decisions and actions – tangible “moves” (Pentland, 1992) the

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entrepreneur made as she organized her business. Each *organizing move* is a tangible, “mentionable event” (Pentland, 1992: 259) that was coded from the interview transcripts. Like the organizing moves analyzed by Lichtenstein, Dooley and Lumpkin (2006), each move represents a moment of organizing, through which the entrepreneur seeks to make the concept more real, more tangible, more viable, and/or more clear.

To identify these data, the second author read through the entire book, then outlined each fax individually to insure that all possible moves would be included. Next, she examined every transcript (fax transmission) phrase by phrase and paragraph by paragraph, looking for all the distinguishable *ideas, plans* or *actions* that were enacted by the two founders. Each of these were defined as organizing moves, and were summarized and listed in a table. The first author re-examined large sections of the data and the coding, making his own additions and alterations, each of which were agreed upon by both authors.

At that point, the two authors worked together to code this set of *organizing moves* into three categories: Ideation, Planning, and Tangibility. Ideation incorporates all the values, visions, and conceptual ideas that were expressed by one or both founders, e.g. core values for the business, initial ideas for products, and the qualities they want to represent in the market. Planning incorporates more tangible tasks of industry research, market definition, and specific decisions regarding products, marketing or strategic entry that have implications for further organizing. Tangibility refers to actions that reach beyond the two entrepreneurs: meetings with potential suppliers and distributors; conversations with potential mentors and competitors; purchases of sample products or industry research reports; meetings with lawyers, and so on. A segment of our coding is provided in Table 1. The total data set encompasses more than 375 unique moves across 138 faxes during the 38-week start-up process (not including the year of no organizing).

Please See Table 1—*Organizing Moves and Tangibility Coding*

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After doing a final round of validity checks, we aggregated each category by weeks, to generate a week-by-week account of the organizing process of Republic of Tea. This method is based on Van de Ven & Poole's (1990) coding framework to analyze start-up ventures, and draws from the approach of Lichtenstein, et al., 2006. In addition to charting the raw count of organizing moves, we analyzed the momentum of each category of organizing by calculating the week-to-week *percentage of increase* for each of the three types. Then, to make the shifts in momentum even more visually evident, we graphed the *cumulative* percentage of change, week to week, within the two key phases of organizing. These data transforms give us a better view into the temporal dynamics of the organizing processes (Dooley & Van de Ven, 1999). Next, we provide an overview of these three phases of organizing, and relate them to the emergent outcomes in each.

RESULTS: TANGIBILITY OF ORGANIZING AT REPUBLIC OF TEA

Three Phases of Organizing

Entrepreneurial organizing at The Republic of Tea is best seen in three distinct phases. Phase 1 begins after the 'chance' meeting of Bill Rosenzweig (Minister of Progress) and Mel Ziegler (Minister of Leaves), with their first fax transmission on April 7th, 1990. These two founders set a dizzying pace of organizing for two months, through the middle of June, 1990. Then, from July 17th, 1990 through July 27th, 1991 there are no transmissions at all, reflecting a complete cessation of organizing for more than a year – the period of Phase 2 Organizing. Then, Phase 3 Organizing commences a year later at the end of July, 1991 and continues through December 17th, 1991 with the completion of their formal business plan. The Republic of Tea became incorporated a month afterwards, and their first sale occurred in May of 1992. A visual chart of the raw number of weekly organizing moves in Phase 1, 2 and 3 is presented in Figure 2. Next, we explore in some detail the organizing dynamics within each phase.

Please See Figure 2 – Total Organizing Moves per week, Across all three Phases

DYNAMICS OF ORGANIZING – PHASE 1

Phase 1 Organizing for the Republic of Tea began with the first fax transmittal from Bill Rosenweig to Mel Ziegler. Building upon their initial airplane conversation, the faxes sent during the first two months touched upon core characteristics and an overall definition of their new business idea. The two founders identified some unique qualities and characteristics which they thought would set their business concept apart from competition. In each fax the founders bounced ideas around packaging, merchandising, and positioning off each other, incorporating visuals created by Mel's wife who gained the title Minister of Enchantment. By the end of Phase 1 the first draft business plan was written which the founders' attempts to qualify the competitive potential of the concept in the rapidly growing market of high-end teas. The ideas exchanged between Bill and Mel were mostly visionary during Phase 1, creating a free-flowing atmosphere of creative thinking with frequent concept modifications.

Tangibility and Momentum (or the lack thereof!) in Phase 1

The time series data show a distinct pattern of organizing in the first two months, which is illustrated Figure 3. Following a tremendous initial burst of organizing energy, there are fewer and fewer increases in Ideation, Planning, and Tangibility over this 12 week period. Specifically, after a huge peak of organizing moves within the first month and a half (see Week 6 in Figure 3, May 6th-12th in Figure 2), the number of moves in each category decreases rapidly, becoming zero by the middle of June. Essentially, after a near exploring of initial effort, the whole concept fizzles out: all organizing stops after just two months of intense thinking, visioning, and planning

An intriguing and important pattern in Phase 1 is illustrated in Figure 4, which tracks the cumulative percentage of tangible vs. planning vs. ideation moves. These data tell a very clear

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story: the vast majority of moves in this phase are Ideation, representing the founders' visions, values and beliefs that should guide their organizing. Although The Minister of Progress did some Planning and did accomplish a small number of Tangible moves, the system is overwhelmingly Ideational, with very little concrete progress.

Please see FIGURE 3: *Lack of Momentum in Phase 1 Organizing*

Please see FIGURE 4: *Tangibility in Organizing, Phase 1*

Emergence Outcomes in Phase 1

As suggested by our research propositions, the lack of tangibility in this early phase of organizing results in very few emergent outcomes. Essentially, ideas on their own did not build momentum, nor did they lead to much emergence. This Phase shows the emergence of only a minimum of internal structures, formal plans, or tangible agreements with potential business collaborators (suppliers, distributors, etc).

At the same time, nearly 80% of the total length of transcripts occurs in these first two months, amounting to the majority of all their interactions around company values, product ideas and market research. Phase 1 organizing does include the two primary drafts of the business plan, which remains relatively stable through to the creation of the company. Likewise, the initial packaging concept – selling the tea in high-quality round containers – was developed in the first week (!), and remains a defining feature of the company's product and image.

We identified several examples that reflect 1st degree emergence – the creation of structures or properties within the organizing system, including the business plan, the packaging concept, and the catalogue idea. So there is some emergence here, along with a set of values and ideas which forms the basis for the later phase of organizing. In a way, this finding offers moderate

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confirmation for our second research question: the low tangibility of organizing moves in Phase 1 results in only 1st degree emergence. Our analysis does not reveal 2nd degree nor 3rd degree emergence, which makes sense given the low tangibility during the first months of the effort.

DYNAMICS OF ORGANIZING – PHASE 2

Phase 2 defines the period in which Bill and Mel do not transmit any faxes at all. Some casual efforts are reported in a letter by Bill, who pursued some marketing ideas including advertising designs and logo options, and who undertakes a good deal of personal development, which we summarize in the Discussion, below. On the surface, however, we found zero organizing at all between June 17th, 1990 and the resumption of communication on July 27th, 1991.

DYNAMICS OF ORGANIZING – PHASE 3

Phase 3 creates a platform for the launch of The Republic of Tea. The founders build upon their initial concepts, pursue more tangible planning, and concretely expand their network by a large margin. The substance of their communications is both more dynamic and more practical, largely due to Bill's knowledge and engagement with people in the tea industry. Bill openly shares the business concept with outside tea merchants, wholesalers and distributors, thus expanding the tangible elements of organizing well beyond the confines of the partnership. He also spent time formalizing the business side of the venture, including the financial, legal and structural elements of the company that are expressed in the final business plan. Although there are fewer fax communications per week in this phase (see below), the outcomes are far more tangible, leading to the emergence of the company.

Tangibility and Momentum in Phase 3

In contrast to the early organizing in Phase 1, the final six months of effort involve far less “talking about it” and far more action. This is easy to see by the length of the transcripts themselves:

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these six months are encompassed in 60 pages of text (10 pages/month), whereas in Phase 1 the transcripts encompassed ten times that amount, i.e. ~100 pages per month! In other words, rather than writing about it, discussing it, and visioning it, the Minister of Progress in Phase 3 is spending far more time in *tangible organizing*: meeting key people in the tea industry, expressing and refining the idea, developing a formal business plan, negotiating with a potential funder, and do on.

This shift in behavior is clearly expressed in Figure 5, which presents the cumulative percentage increase in organizing through this phase. After an initial increase in Ideation, Planning and in Tangibility, note the dramatic increase in Tangibility organizing during weeks 7-9 (corresponding to September 1st-21st, 1991), which continues to increase rapidly through the end of the year. In a similar way but with less variance, Planning increases consistently throughout the six months of phase 3 organizing. These two increases pave the way for significant momentum to build in the organizing. In contrast, Ideation increases by only half the amount of the other two; moreover there are virtually no added Ideation moves in nearly one third of the weeks in Phase 3. The expansion of tangibility and planning lead to a clear momentum in the business; this is perhaps supported by a lack of growth in ideation.

This visual analysis is clarified in Figure 6, which is a “trend-line analysis” of the total moves per week in Phase 3. A trend line is a statistical technique that essentially finds the directionality of points in a data set. Formally, the trend is a regression line that reflects the best single line that captures the overall direction of the data. The key here is “directionality” – more than a simple average, a trend line helps uncover the “momentum” of the data. Usually this is used to forecast where future data points may be. In our case, the trend line is a way to quantify the underlying tendency of the organizing process.

[Typically, regression analysis is linear; the trend line is therefore a straight line that explains the directionality of the data in its simplest form. However, trend lines can be curved as well – a squared term $[x^2]$ in the equation leads to a large U-shaped line (single curve); a cubed term $[x^3]$ generates an S-curve (two

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curves), and so on. In algebra, each curve represents an additional “dimension” to the analysis; the total number of curves refer to the number of dimensions in what’s called a “polynomial trend line analysis.” Given our overall assumption that these data represent a dynamic system with a very high degree of dimensionality (Dooley & Van de Ven, 1999), the ideal would be a very high dimensionality for the trend line. However, the most complex dimensionality that Excel calculates is six dimensions, resulting in a “sixth-order polynomial trend line” for each type of organizing.]

This analysis, presented in Figure 6, reveals some intriguing dynamics. In particular, there appears to be a strong increase in momentum in Planning from early September through early November, and then again at the very end of the process. Likewise but more dramatically, we see a buildup of momentum in Tangibility through the month of October, which explodes into the middle of December: the trend line increases literally off the chart in the last two weeks of the data. Overall, these findings strongly suggest that Phase 3 organizing was much more concrete due to significant increases in Planning and in Tangibility. This is demonstrated in the trend to more tangibility as the project moves forward, and an amplification of planning moves and in developing external relationships. These increases, shown dramatically through the trend line analysis, do result in a host of emergent outcomes, which we describe next.

Please see FIGURE 5: *Tangibility in Organizing, Phase 3*

Please see FIGURE 6: *Trend line Analysis for Phase 3 Organizing Moves*

Emergence Outcomes in Phase 1

As one would expect, the high level of Tangible moves and Planning moves, matched with a strong momentum in both those organizing efforts, yield a host of emergent outcomes. We review some examples of 1st degree, 2nd degree and 3rd degree emergence, with an eye to our secondary research question that links higher levels of tangibility with higher degrees of emergence.

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1st Degree Emergence: System Properties. Through the organizing interactions between the Minister of Progress and the Minister of Leaves, a number of properties and structures emerged within the system. As revealed in the Business Plan (Dec. 19th, 1991 – in Appendix 1), several processes were created to help guide and structure future organizing efforts. We would claim that these are emergent outcomes – not due to formal analytic planning, but arising through the ongoing series of interactions between the all the agents in the system. In this view, emergent outcomes include a Product Plan, a Product Launch Sales Plan, a unique Packaging and Distribution Strategy, and a Pro-Forma Income Statement, as well as a set of short-term and long-term goals – all of which help to focus their efforts. In addition, as we explain below, there emerged more formal roles and responsibilities which also facilitated the organizing process. Other examples could be offered; suffice it to say the high levels of tangibility and momentum yielded a wide array of 1st degree emergences.

2nd Degree Emergence: New Unit of Order. One unexpected outcome of organizing was the emergence of a catalogue with of products for brewing and enjoying tea. Although the catalogue was but one of many ideas explored in the process, the founders returned to it over and again, using it as a forum to consider product concepts, extensions, and specific markets to whom the catalogue might be directed. The catalogue started as an amalgam of drawings, visions, and lists of possible contents – as a context or ‘placeholder’ for possible ideas. As these ideas became more real, through decisions and actions being taken by the founders, the catalogue emerged as a distinct “entity,” representing a somewhat autonomous business model with its own qualities and characteristics that were distinct from the business as a whole. For example the catalogue included a rather broad product mix, it relied on its own distribution process, and it generated a complementary revenue stream, while at the same time becoming a unique platform for marketing and product sales. This is the clearest of several examples that show how the increased momentum yielded 2nd degree emergence outcomes.

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3rd Degree of Emergence: Supervenience. According to Mel Ziegler, Republic of Tea's formal incorporation and first product shipment in early 1992 resulted in "the birth of a business." He clearly expressed how this emergent entity was autonomous from its four founders, by recognizing that customers saw the business as a distinct unit of action which interacted with them: "The Republic of Tea is no longer a dialogue among the four of us any more. It is a dialogue between itself and customers" (Ziegler et al., 1992: 293). In addition to this emergent level of order, the birth of The Republic of Tea resulted in supervenient effects – downward causation from the entity to its components that altered those components in tangible ways. For example, the firm-level actions, e.g. purchasing and shipping tea through their local supplier, and marketing/selling the product through high-end distribution channels, created constraints for the system which shaped future behavior – e.g. formalizing relationships with suppliers and vendors, initiating routines for order taking and product fulfillment, and so on. In this case the added level of emergence and its supervenient qualities became highly successful: The initial sales revenues of Republic of Tea were double their expectations (i.e. 200% of pro-forma projections) in each of the first three years of business, resulting in a 30% annual growth rate for the company. Further, Republic of Tea quickly became a recognized market leader of in the premium tea segment (Penson, 1994). This shows how increased momentum in tangibility led to the strongest form of emergence, leading to significant tangible outcomes as well.

In sum, the creation of The Republic of Tea within the emerging premium tea industry market provides examples of all three types of emergence: 1st Degree Emergence of structural properties, 2nd Degree Emergence of new levels of order, and 3rd Degree Emergence of new levels of order with supervenient effects. Each successive level had an increasing impact on the business, its customers, and its environment, giving some supportive evidence to that proposition from complexity science. These outcomes were a relatively direct result of high levels of tangibility, and

high levels of momentum in the 3rd phase of organizing the business, as we had suggested in our research questions.

DISCUSSION: INTERACTION DYNAMICS

Phase 1 Organizing of *The Republic of Tea* was mainly a visionary process that moved from concept to concept rather than from concept to action. Admittedly, since the relationship between the founders was only 6-hours long (i.e. their airplane conversation), it makes sense that these early interactions allowed the founders to share their personal beliefs about life and the business. At the same time the founders made some assumptions about their personal/business roles in the nascent venture. At the start of their communication Mel, assuming a mentoring role to Bill's lack of experience, enthusiastically responds to the ideation process with his newfound partner. As the junior partner, Bill may have perceived that Ideation moves allowed him to feel most equal to his counterpart. Early on Mel recognized Bill's lack of direct action, but instead of sharing this with Bill he decided to let the business "speak for itself."

However, after Mel realizes that Bill was not getting it, Mel decides to push Bill in the "practicality" department by becoming more vocal and involved: Whereas in the first five weeks Mel had sent an average of two faxes each week, week six showed a 400% increase in Mel's involvement – he sent eight separate communications; more than in any other week throughout the entire 21 months. We see this as a forced shift in the dynamics of their interaction, reversing the initial expectations and behaviors of both of them. That is, Mel had already signaled his interest in letting Bill lead rather than getting involved in more tangible planning. In contrast, by enacting so much direct organizing Mel altered the dynamics of their interactions – a move that was risky and challenging.

Unfortunately, Mel's intervention ended up backfiring. Bill's lack of confidence expanded again; Mel then backed off but became even less engaged. Bill reacted by reverting back to mainly conceptual moves: the end of Phase 1 shows a spike in Ideation. Worse, Bill's overall efforts decrease

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substantially from that point; he seems to lose the motivation and drive to organize. This shows up most clearly in his decision to take on a full-time job and turn his attention back to providing financial stability for his family.

Although there is no apparent progress in organizing during this Phase 2 hiatus, Bill's notes reveal that he enacted a great deal of personal and professional development. Having realized that he unconsciously set himself up to simply carry out Mel's directions, he consciously develops a new intention: "I needed to 'own' [the business] if I was going to lead it" (pg. 223). He also identified that the major barrier to his organizing was a lack of product knowledge. This prompted him to find a local tea expert with whom he spent many hours learning doing "tea tastings," learning how to differentiate between all kinds of qualities and types of tea. Thus throughout Phase 2 Bill's knowledge of the tea market grows, as does his confidence in his ability to capitalize on the original business concept. Furthermore, Bill notices that even after a year off he's still thinking a lot about the business: "I still had a strong desire to pursue tea." Seeing that Mel's mentoring would still be invaluable, Bill reconnects with his partner in July of 1991.

This time – in Phase 3 – Bill's increased knowledge of the tea industry is amplified by his renewed commitment to organizing the business. Even more importantly these qualities are amplified by his recognition that *he* would have to lead the effort, not Mel. This transformation from follower to leader is fundamental to the success of the business, and may be the key driver for the increase in tangible organizing that follows. The more he takes the lead, the more he recognizes the results he can achieve. Likewise, the positive results of his tangible organizing generate an increasing momentum for the business, and this momentum amplifies Bill's internal confidence, generating a positive feedback loop. Complexity science shows that this amplification process becomes the catalyst for the creation of a new venture (Dooley, 1997; Goldstein, 1994; Lichtenstein, 2000).

CONCLUSION

Complexity science provides a unique set of tools for exploring the temporal dynamics of organizational emergence, which we've utilized in our close analysis of *The Republic of Tea*. Drawing on Gartner's approach to organizing and complexity's understanding of emergence, we focused on the role of tangible organizing behaviors in generating emergent outcomes. We parsed the entrepreneurs' transcripts into *organizing moves*, then coded each move as either Ideational (the least tangible), Planning (more tangible), or Tangible (the most tangible). By aggregating the sum of these moves week-by-week, we transformed the qualitative data into a quantitative time series, which we used to highlight the ebbs and flows of entrepreneurial action, i.e. the temporal process of organizing.

We found that the first phase of organizing involved mainly intangible moves – visions, values, and beliefs about the business; these did not generate much momentum, and led to very little emergence. In contrast, the third phase saw a surprising decrease in the raw amount of Ideation, and a very large increase in the raw number of planning and tangible moves; together these generated a significant amount of momentum in Phase 3. The result of this momentum was the emergence of 1st degree internal structures and processes, the 2nd degree emergence of a complementary business model through the catalogue, and the 3rd degree emergence of an incorporated company. The company grew well beyond expectations, a result that is highly correlated to these increases in tangible organizing moves, momentum, and emergent outcomes. Overall we think these findings lend support to our propositions linking tangibility to emergence and our claim that greater tangibility will generate greater degrees of emergence, findings which are unique in the field.

We recognize several limitations to our study. First, the analysis relies on coding qualitative text in two different ways, i.e. identifying distinct moves, and coding each move into one of three categories. Although there is a good deal of subjectivity in this coding, having multiple coders and being able to resolve every difference leads to much higher reliability and validity in our analysis. Likewise, another limitation is that the things that were not included in the transcripts may be as

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important as what was; of course, this limitation is present in virtually all qualitative analyses. Third, our visual time series analysis relies on a series of transformations of these coded data; transformations which could be accomplished in ways that highlight other dynamics while contradicting the issues we found important. Our hope is that by including five different charts we are offering an analysis which, though potentially flawed in one or two ways, presents an accurate picture overall. Finally, of course, The Republic of Tea is only one case; we must take care in extending our conclusions much beyond this unique context. Yet, the case gives us access to very in-depth data, which is critical for understanding subtle phenomenon like emergence (Yin, 1989; McKelvey, 2004).

Taking these limitations into account, we offer a number of implications of our study for scholarship and practice. First, this study highlights the value of focusing on *emergence* as both a process and an outcome of entrepreneurial organizing. As shown in our theory, our methods, and our analysis, a good deal is known about the mechanisms underlying emergence, as well as the range of outcomes that are generated through these mechanisms. Emergence is no longer a black box; this paper and others lend credibility to the claim that emergence is and should be a central theme within entrepreneurship.

Second, complexity science provides a host of tools – both theoretical and analytical – which provide insight into the dis-equilibrium process of organizing and other temporal dynamics of emergence. Further, the application of visual time series analysis to dynamic systems is a useful way to reveal and help explain the underlying mechanisms that might lead to emergent outcomes. The tools we use are complementary to the simulation-based methods recommended by McKelvey (2004) and Davis, Eisenhardt & Bingham (2007), emphasizing the broad value of complexity science for management and entrepreneurship.

Third, the inherent practicality of complexity science leads to clear recommendations for practicing entrepreneurs. Primarily, although not all organizing can be tangible, our study suggests that the more grounded and concrete an entrepreneur's actions, the better. As Mel revealed in one of

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his notes: “Starting a business is not an idea. It is *getting things done*” (pg. 122). Entrepreneurs who are focusing a lot of time on getting the vision right or cogitating over the correct design or the ideal business model are likely to get lost in ideation – our study shows this can diminish momentum and limit the likelihood of emergence. Instead, ideas and plans should be a complement to tangible action; behavior should lead and cognition and explanation should follow. Although this suggestion has been invoked by others (e.g. Lichtenstein et al., 2006; Sarasvathy, 2001), our study confirms the importance of tangibility in generating emergence.

Finally, our study offers a call for our field, which is equally expressed by all the papers in this special issue. Amidst the strategy-oriented thinking of an increasingly number of scholars in entrepreneurship, and in light of the diffusion of entrepreneurial ideas across the academy, our approach gives hope to the prospect that there is something distinctive about the field of entrepreneurship, namely dynamics of emergence. Our study identifies some of these dynamics, including the theory that opportunity tension drives organizing, and the findings that tangibility and momentum are drivers of emergence. Just as emergence provides a unique and important area of inquiry for entrepreneurship, so too entrepreneurship offers a powerful and effective empirical context to study emergence. Together, these two disciplines have a synergy which can improve our understanding of both, for the tangible benefit of academic research and entrepreneurial practice.

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FIGURE 1: Three Degrees of Emergence

